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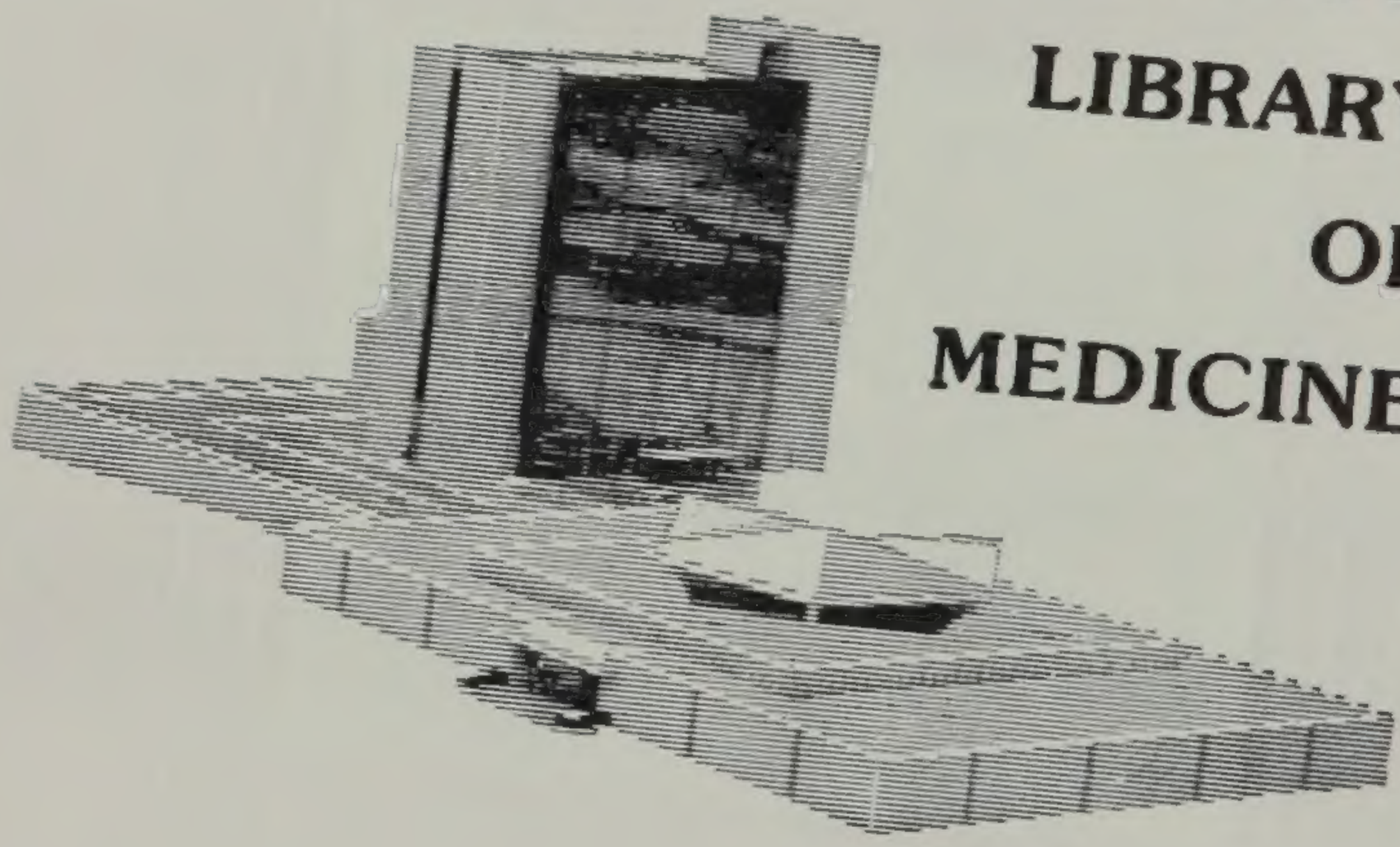

UTERINE

DISEASES AND DISPLACEMENTS

A Practical Treatise

ON THE

VARIOUS DISEASES, MALPOSITIONS, AND STRUCTURAL DERANGEMENTS OF THE UTERUS AND ITS APPENDAGES.

BY

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PREFACE.

THE design of the following work, though long entertained, has been hurried on to completion, in consequence of the difficulties experienced during the first term of the New York Hydropathic and Physiological School, in communicating to the medical class clearly and intelligibly the requisite knowledge of the special subjects of which it treats.

I have inquired at medical bookstores in vain, and as vainly searched through the whole range of professional literature pertaining to female diseases, without finding either satisfactory explanations, or appropriate illustrations, sufficient to enable me to do justice to the class in teaching this indispensable, yet generally little understood, branch of pathology.

I was thus driven to the necessity of placing a variety of designs and specifications in the hands of the artist, in order to explain fully and clearly the different malpositions of the uterus and its

appendages, and to enable the student to comprehend, with sufficient precision, the mechanical or surgical treatment required. But no sooner had this idea become elaborated into drawings, than it was seen to be equally necessary to accompany them with exact descriptive and practical data. Nor was it convenient to stop even here; for the various displacements of the organs of the uterine system are so intimately connected with a variety of abnormal conditions, constituting, indeed, a long catalogue of diseases, that a perfect discrimination and full understanding of the former implies a no less complete knowledge of the latter.

Thus has my original intention, to explain a few pathological problems to the class, developed itself into the book which is now offered to the public, in the confident hope that thousands of suffering females will find among its contents the hints which will guide them to health restored and happiness renewed; and that hundreds of philanthropic physicians, male and female, will recognize it as a reliable guide in their practice.

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INTRODUCTION.

The student of medicine who reads over the long catalogue of books which have been written on female diseases, and reckons up the number of mechanical contrivances and surgical instruments which have been invented to remedy so simple a disorder as a displaced uterus, can hardly resist the conclusion, that a great deal of knowledge must have been accumulated by the profession on these subjects.

And this is true. But it is also true that the medical profession is lamentably deficient in the *precise kind of knowledge* required to medicate these maladies successfully. It may be laid down as an axiom in medical science, that when a very long list of medicines and processes is prescribed and recommended by physicians for a given disease, those physicians are never successful in the management of that disease. As a general rule, the less medical men understand the real nature and appropriate treatment of any disease whatever,

the more various, complicated, and numerous are their prescriptions, *alias* experiments. Witness cholera, consumption, scarlet fever, convulsions in children, cholera infantum, dysentery, etc., etc., as well as female diseases.

These remarks apply with peculiar emphasis to the maladies treated of in this work. It is very well known, and, indeed, *confessed* by all the standard authors, that physicians generally, with all the assistance they are able to derive from an ordinary medical education, and from all the books and teachings extant on the subject of female diseases, and more especially in relation to uterine displacements, are miserably unsuccessful in the treatment of them. Almost every thing that mechanical ingenuity, surgical skill, and medical experimentation could suggest, has been brought to bear upon the afflicted females, and generally with results as disastrous to the health of the patients as disgraceful to medical science.

Thus when our learned Esculapians have discovered a little weakness about the loins and tenderness along the spine, symptomatic, perhaps, of retroversion, anteversion, prolapsus, leucorrhœa, or mismenstruation, they have leeched, blistered, scarified, and cauterized the back, without giving the least attention or directing a single thought to the primary difficulty—the real cause of all the trouble.

And again, when the evidences of prolapsus are so apparent that the physician can not help knowing it, he is usually contented to support the part with a pessary of some sort, which, if it do not induce excoriation and ulceration, will certainly, by constantly distending the vaginal canal, add to the cause of the disease, and render all its deplorable consequences worse eventually.

And then, again, when the diagnosis is decisive that retroversion or anteversion exists, many practitioners are content to prescribe lying in bed for weeks and months, with the hips raised higher than the head, and the face upward or downward as the malposition is forward or backward, the consequences of which are, that, in nine cases out of ten, the displaced organ is not improved, but the whole muscular system is enfeebled, and the constitutional stamina seriously impaired.

And yet again, as has many times happened, when the patient complains of weakness, sense of weight in the pelvis, dragging-down sensations in the abdomen, "goneness" at the stomach, with indisposition or inability to walk, the doctor applies a truss or abdominal supporter, and thus the weakened muscles are converted from a state of debility into a semi-paresis, or something worse, while all the internal viscera are injured, often irretrievably, by some kind of mechanical pressure.

I have now under treatment a lady, who wore

one of these "abominable supporters" for three years, until the constant pressure had induced ulceration, which, opening externally, resulted in the formation of an *artificial anus*, midway between the umbilicus and pubis, through which a large portion of the contents of the intestines is forced, instead of passing out through the rectum. The distressing condition of such a sufferer can easily be imagined.

It is not, therefore, wonderful that this branch of medical practice has lately, to a great extent, fallen into the hands of "specialists," who have devoted much attention to the subject, and have had vastly better success in its treatment than has attended the efforts of the "regular profession."

It must, however, be admitted, in extenuation of the charge of malpractice, that no amount of pathological knowledge and therapeutical skill, can ever be sufficient to render a physician generally successful in the management of the class of complaints we are considering, if applied in connection with the common notions of drug-medication. And again, it should be understood that physicians who are engaged in an extensive and promiscuous general practice, can not always give the requisite personal attention to the treatment of them, however intelligent and skillful they may be.

The essentials of successful treatment in these cases may be thus stated: 1. An exact anatomical

knowledge of the misposition of the misplaced organ or organs, and its relation to surrounding parts. 2. A precise understanding of the actual and relative debility of all the muscles and structures concerned in maintaining the normal position of the organ or organs. 3. A correct adaptation of mechanical means or surgical appliances to the replacement of the organ or organs. 4. A certain means of energizing the relaxed and debilitated muscles—in other words, restoring their contractility. 5. Strict atténtion to hygiene, so as to restore tone to the whole organism, and improve, as far as may be, the general health.

Keeping in view these essentials, we will have no difficulty in explaining the numerous cures and innumerable failures recorded in medical books. Nor need we be at much loss to account for the incomparably greater success which has attended the *special* practice of those who aim to distinguish their methods of management by such titles as "Kinesipathic," "Statuminative," "Motorpathic," "Electromagnetic," "Nervo-vital," "Vital-dynamic," "Electropathic," "Aeripathic," "Atmopathic," "Orthopædic," etc., etc., all of which terms, as applied to the healing art, or to this class of complaints, may be, in their strictest literality and in their broadest implications, perfectly expressed by either of the words, *exercise*, *action*, *motion*.

It is to be regretted that the few practitioners

who have made the treatment of this class of diseases a speciality, have not been more candid and more philanthropic, instead of seeking to envelop the whole matter in technicality and mystery. And it is equally to be regretted that some hydropathic and many other physicians, themselves profoundly ignorant of the whole matter, have cried out "Quackery," "Humbug," etc. Those who have made improvements in the treatment of these cases, are certainly deserving the patronage of the afflicted, whether their motives be mercenary or benevolent; and it is certainly asking and expecting too much of human nature in this *commercial* age of the world's history, that those who can will not profit by their skill in the specialities of the physician's avocation, as well as in those of the various departments of trade and other industrial pursuits. Still the public has a right to know all it can find out on the subject; and we, as practical physicians and public teachers, have a right to know and teach all there is to be known and taught on the subject, provided we have the opportunity to learn and the ability to communicate it.

The question is often asked, Why are uterine diseases, and especially displacements of the uterine organs, so much more prevalent now than fifty or a hundred years ago? The inquiry is easily answered. In those days, our girls were educated to more active, out-door, working habits. Spinning,

weaving, romping, and household duties, were then fashionable; and the exercises consequent on their performance tended to invigorate the muscular system and preserve the general health. Now, machinery has, to a great extent, driven our females who are obliged to earn their own bread, into damp cellars, close garrets, or rear-buildings, to bind shoes, make shirts, sew on caps, stitch at millinery and mantua-making, etc.; while the daughters of the rich idle away their time in novel-reading, or at genteel boarding-schools, and dissipate away their strength in table luxuries and fashionable dresses;—considerations which point to hygiene alone, if properly carried out in the eating, drinking, sleeping, breathing, dressing, and exercising habits, as amply remedial in three fourths of all the cases extant.

I have no hope that the increasing prevalence of female diseases, with their inevitable consequences, feeble offspring and degeneracy of the race, will be stayed, until we can thoroughly indoctrinate the public mind, fathers and mothers especially, into the great principles of a physiological education.

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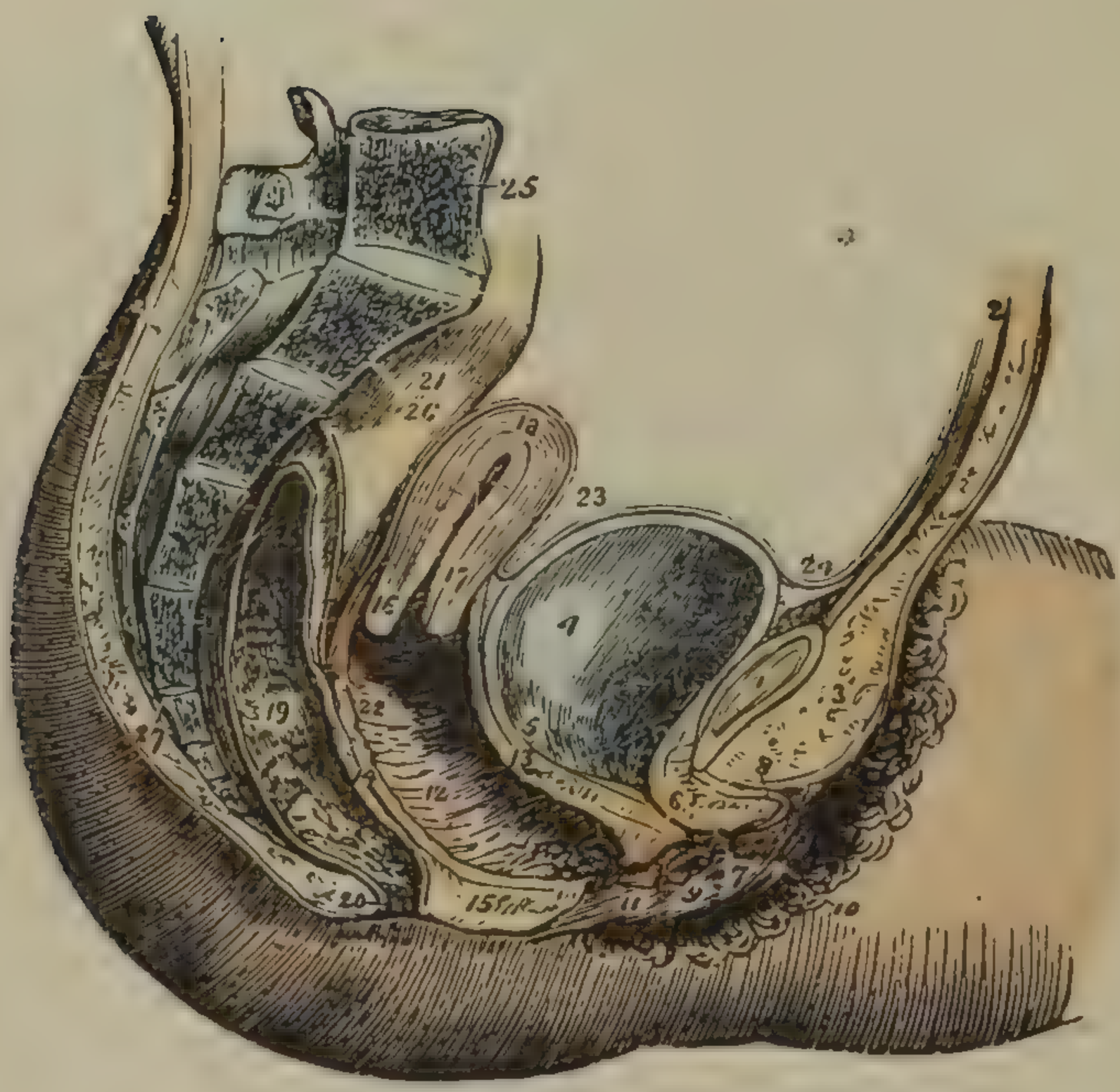
PROLAPSUS OF THE VAGINA.

FIG. 1.



VISCERA OF THE FEMALE PELVIS.

PART I.

UTERINE DISEASES.

CHAPTER I.

ANATOMY OF THE UTERINE SYSTEM.

Those who undertake the mechanical or surgical treatment of uterine diseases or displacements, should be thoroughly familiar with the anatomy of the pelvic structures and organs. And, although a very good anatomical knowledge can be obtained from books and plates, I would recommend all who can, to attend upon a course of dissections.

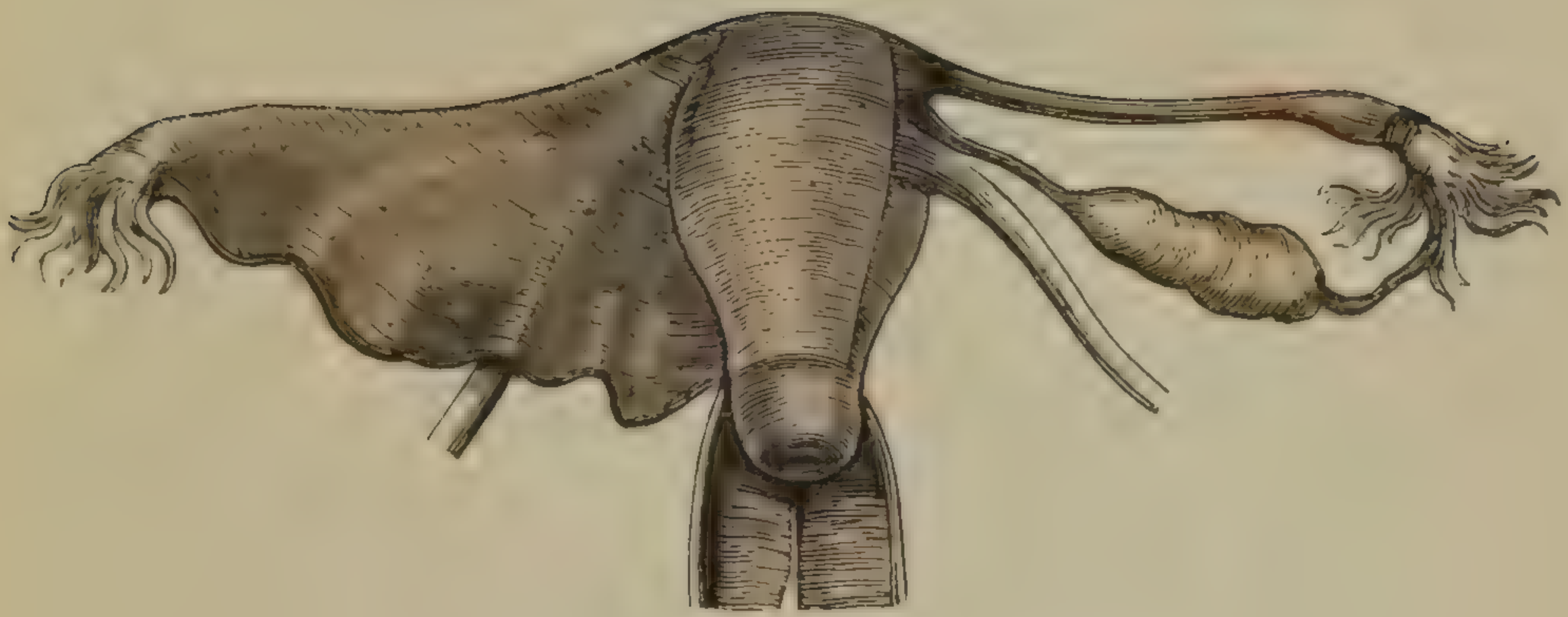
A general view of the viscera of the female pelvis is seen in Fig. 1. 1. Symphysis pubis, to the upper part of which the tendon of the rectus muscle is attached. 2. Abdominal parieties. 3. Collection of fat, forming the prominence of the mons Veneris. 4. Bladder. 5. Entrance of the left ureter. 6. Canal of the urethra, converted into a mere fissure by the contraction of its walls. 7. Meatus urinarius. 8. Clitoris, with its præputium, divided through the middle. 9. Left nympha. 10. Left labium majus. 11. Meatus of the vagina, narrowed by the contraction of its sphincter. 12, 22. Canal of the

vagina, upon which the transverse rugæ are apparent. 13. The thick wall of separation between the vagina and rectum. 15. The perineum. 16. Os uteri. 17. Its cervix. 18. Its fundus; the cavitas uteri is seen along its center. 19. Rectum, showing the disposition of its mucous membrane. 20. Anus. 21. Upper part of the rectum, invested by the peritoneum. 23. Utero-vesical fold of peritoneum; the recto-uterine fold is seen between the rectum and the posterior wall of the vagina. 24. The reflexion of the peritoneum, from the apex of the bladder upon the urachus to the internal surface of the abdominal parieties. 25. Last lumbar vertebra. 26. Sacrum. 27. Coccyx.

The *Uterus* is situated in the central region of the cavity of the pelvis; and, as it has important connections with the bladder anteriorly, and the rectum posteriorly, its diseases and malpositions have a correspondingly important influence on the functions of these organs. The uterus, Fallopian tubes, ovaries, and round ligaments are contained in the folds of the peritoneum, which folds are called the lateral or broad ligaments. They are all represented in Fig. 2.

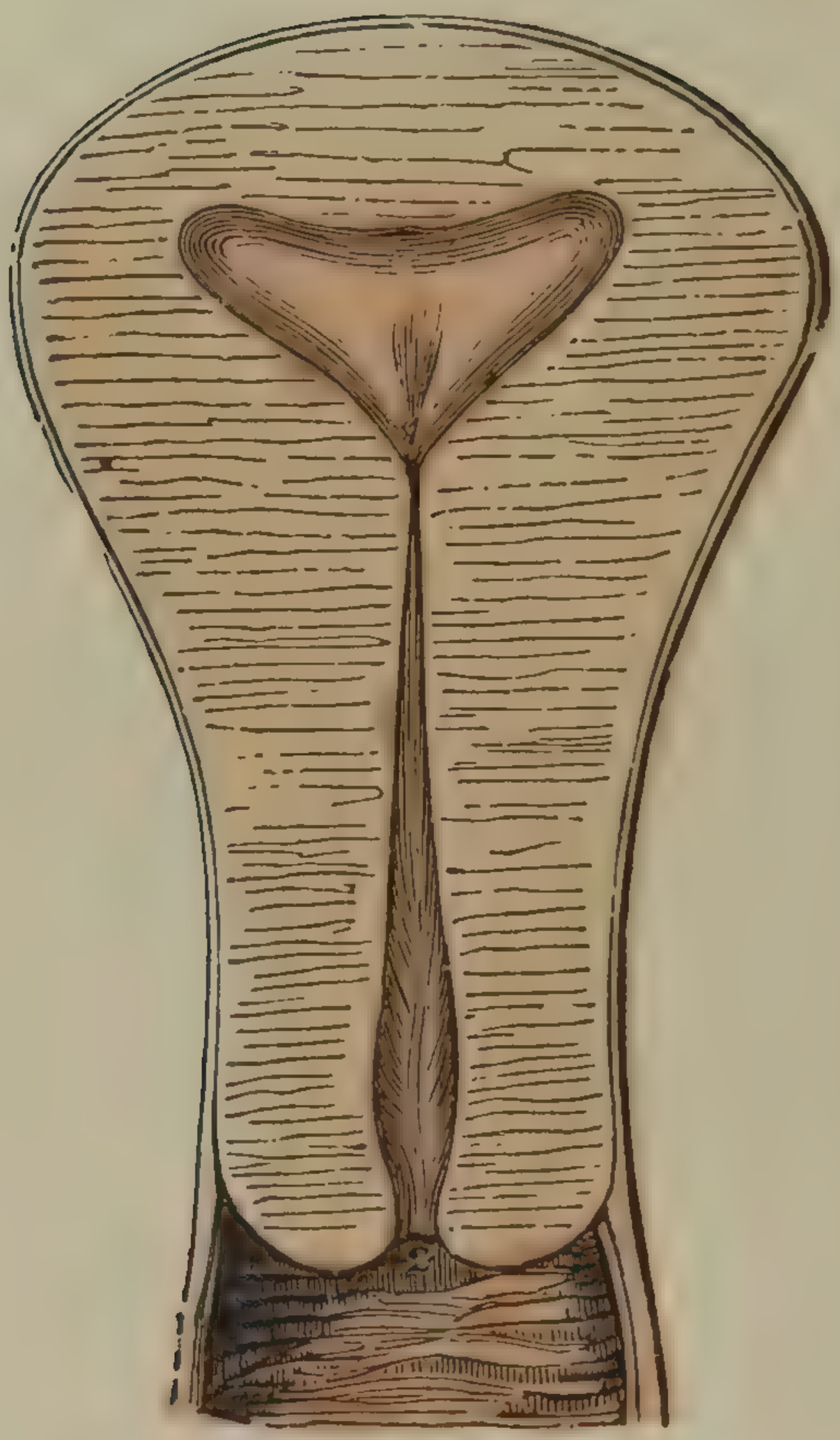
In form, the uterus is a truncated cone, the organ and its appendages somewhat resembling a pear, with the base upward, and flattened from before backward. In the unimpregnated state, it is, in the adult, from two and a half to three inches in length, about one inch and a half broad at its base, and a little more than an inch in thickness. Its upper bulky portion is called the *body*, or *fundus;* the truncated summit which connects with the vagina is called its *neck*, or *cervix;* and its opening into the vagina its *mouth—os tincæ* or *os uteri.* The

FIG. 2.



THE UTERUS AND ITS APPENDAGES.

FIG. 3.



CAVITY OF THE UTERUS.

neck is from an inch to an inch and a half long, and its mouth extends somewhat into the vaginal passage, there dividing into two projecting *lips*, anterior and posterior, between which is a transverse cleft, the orifice of the uterine cavity. The *cavity of the uterus* is triangular (Fig. 3), and at its upper angles open the orifices of the Fallopian tubes.

The anterior wall of the uterus adheres to the bladder inferiorly for about half an inch; and its posterior surface is connected with the rectum, through the medium of the peritoneum, which, after covering it and the upper part of the vagina, is reflected on the rectum, there forming the posterior or utero-rectal pouch.

As the vagina is inserted into the neck of the uterus, it is important to notice that the length of the intra or the supra-vaginal region varies in different cases, as the vaginal insertion is higher or lower; and that the supra-vaginal portion of the neck is the part in contact with the lower portion of the posterior part of the bladder. When the vagina is attached low on the cervix of the uterus, the portion which protrudes into the vagina may be very small, and scarcely distinguishable. When attached very high up on the cervix, the protruding portion is proportionably long. In some cases the neck of the uterus is preternaturally elongated to the extent of two or three inches.

The form and shape of the neck of the uterus and os tincæ, and, indeed, of the whole organ, is varied considerably by the changes necessary to the function of reproduction. Fig. 4 represents the ordinary appearance of the organ in its unimpregnated state. The vaginal cervix resembles the upper part of a small cone. The

os uteri is here a small circular opening on its summit, the anterior lip of which is rather fuller and thicker than the posterior; and although it varies greatly, it does not, in the normal state, give to the finger any distinct sensation of a cavity, but merely of a *depression*. After parturition, the cone formed by the vaginal cervix remains larger and more bulky, and the os uteri remains more open and transversal, as represented in Fig. 5.

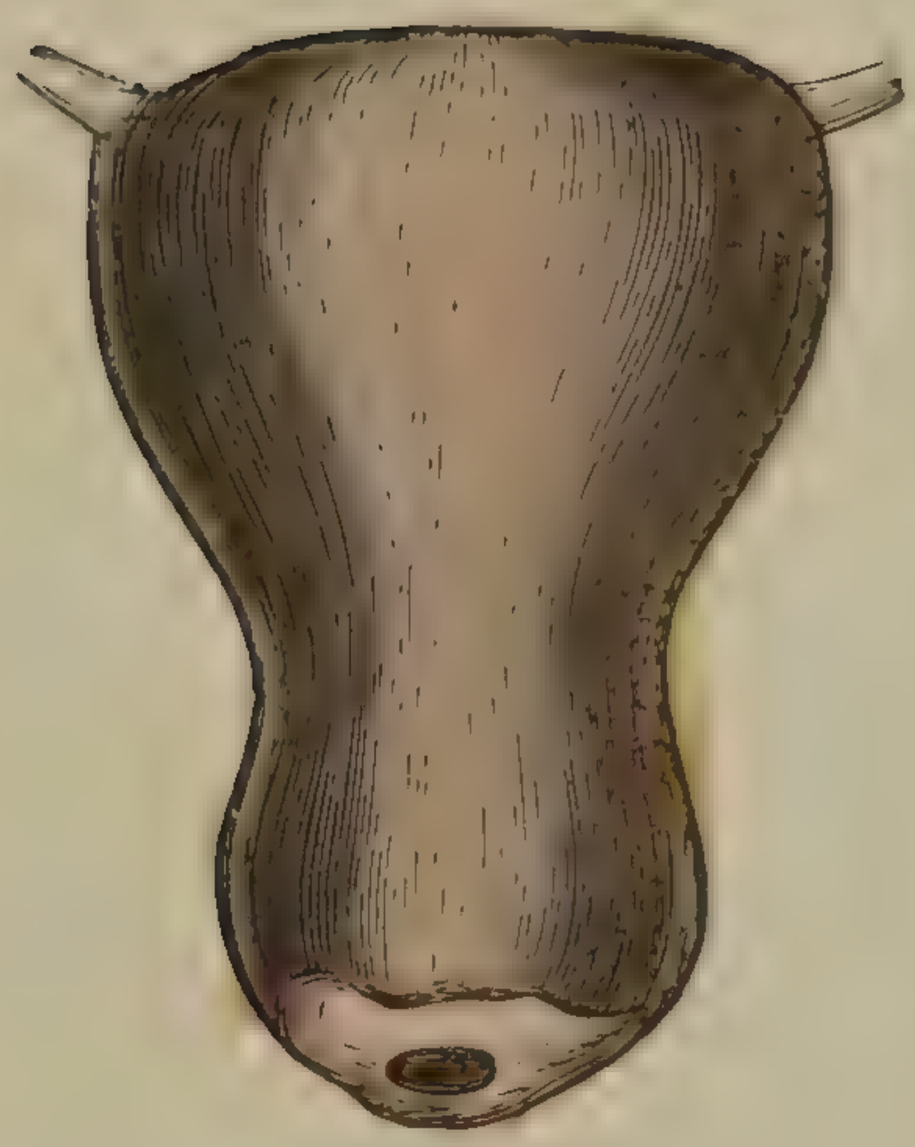
Although the uterus occupies the median line in the pelvis, it is very often situated diagonally from right to left, which circumstance may account for many supposed cases of lateral displacements.

The weight of the nulliparous uterus is only about one ounce and a half, and only half an ounce greater in those who have borne children. It will be seen, by reference to Fig. 3, that the cavities of the body and neck of the uterus are very dissimilar. The former is triangular, and its parieties form curves with internal convexities, which are only separated by a few drops of mucus, while the cavity of the neck is fusiform, with regular curves forming external convexities.

Some anatomists suppose that a sort of muscular sphincter exists at the point of union between the two cavities, which closes that of the body of the uterus during life, and when in a state of health (except immediately after menstruation and parturition), in evidence of which they adduce the fact, that a small sound often meets with considerable resistance in passing into the cavity.

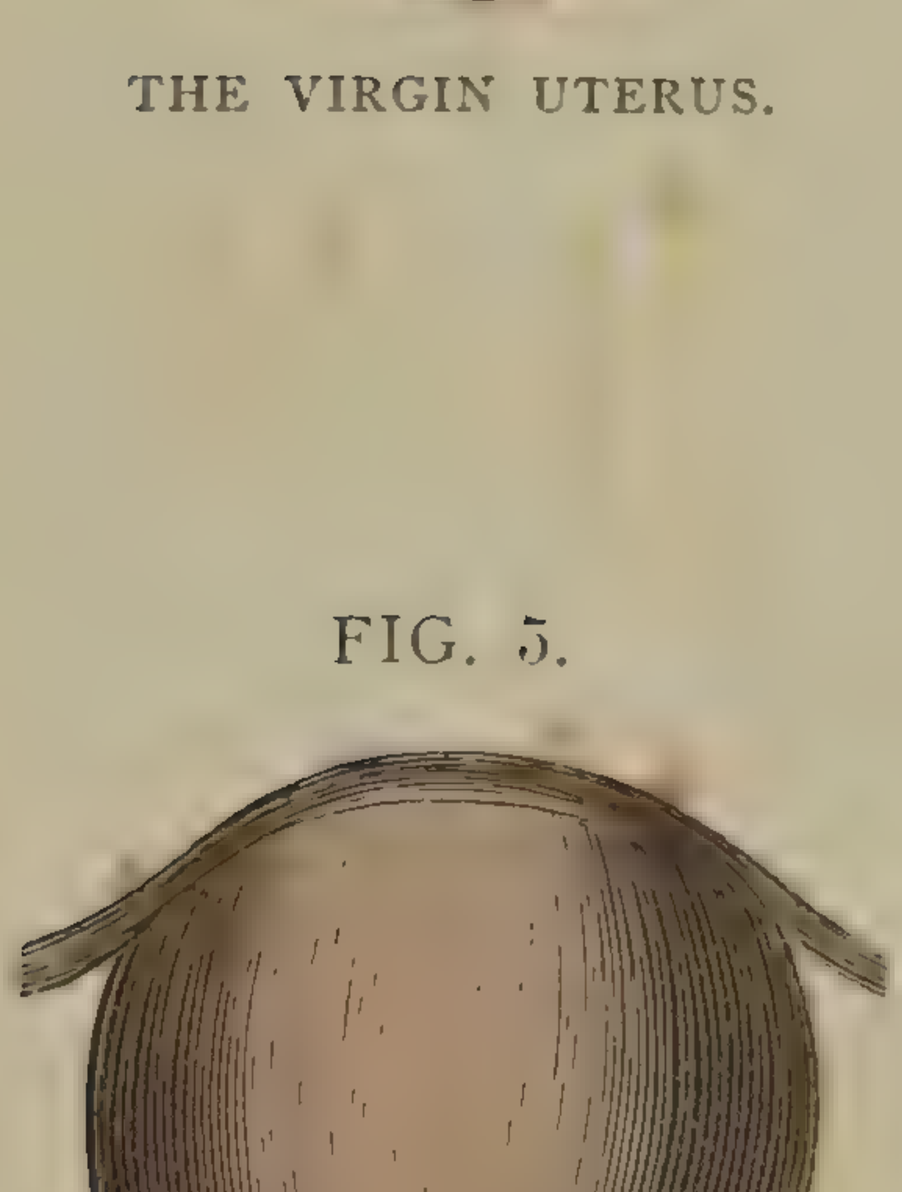
The *arbor vitæ*, or *tree of life*, is constituted of the numerous thick folds which radiate from each side of the longitudinal prominence, or crista, along the median line of both the anterior and posterior walls of the uterus.

FIG. 4.



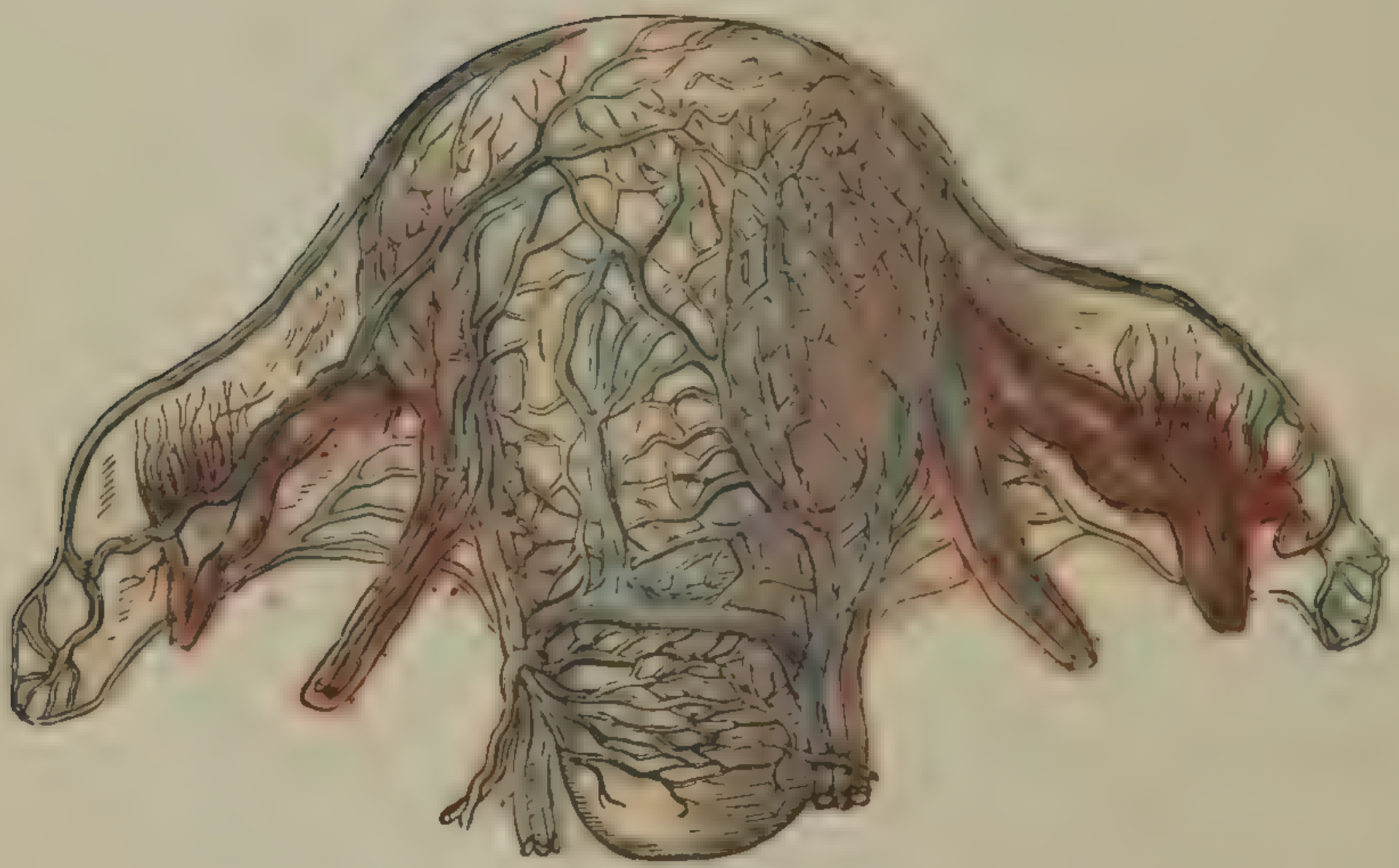
THE VIRGIN UTERUS.

FIG. 5.



POST PARTUM UTERUS.

FIG. 6.



VESSELS OF THE UTERUS.

The muscular structure of the uterus is peculiar; and the whole organ undergoes remarkable modifications during pregnancy and parturition. As pregnancy advances, it becomes highly vascular, and at the full period of gestation it may weigh two pounds or more. Fig. 6 is a representation of its vascularity at this time.

The *arteries* of the uterus are distended or enlarged to an extraordinary degree. The coats of the *veins* are much thinner and their diameters greatly enlarged, and to such an extent that, when the placenta is attached, they have received the name of *sinuses*; and the *lymphatics* are proportionally developed. The *nerves*, too, which, in the unimpregnated state, are very small, increase to the size of large cords, branching out and anastomosing in all directions (Fig. 7), which accounts for its extensive range of sympathies. The vaginal portion of the cervix uteri is, however, in the normal state, possessed of very little sensibility.

The cervix of the uterus possesses a greater amount of areolar tissue and a higher degree of vascularity than its body; but fundamentally the structures are alike. The *circular fibers* of the cervix are distinct from those of the fundus, and are more numerous than the longitudinal, which occupy only the posterior portion of the cervix.

The cavities of the uterus are lined by a mucous membrane, which, however, differs in some respects from the mucous structure in every other part of the body, in being more intimately blended with, or continued into, the other structures forming the uterine parieties. In Fig. 8, *p p* represent the proper tissue; *m m* the mucous membrane.

Usually the lower portion of the uterus is within reach

of the finger in a vaginal examination; hence we can almost always in this way ascertain its size, form, integrity, and abnormal deviations; while, by employing the speculum, we are enabled to determine exactly as to many conditions of inflammation and structural derangement.

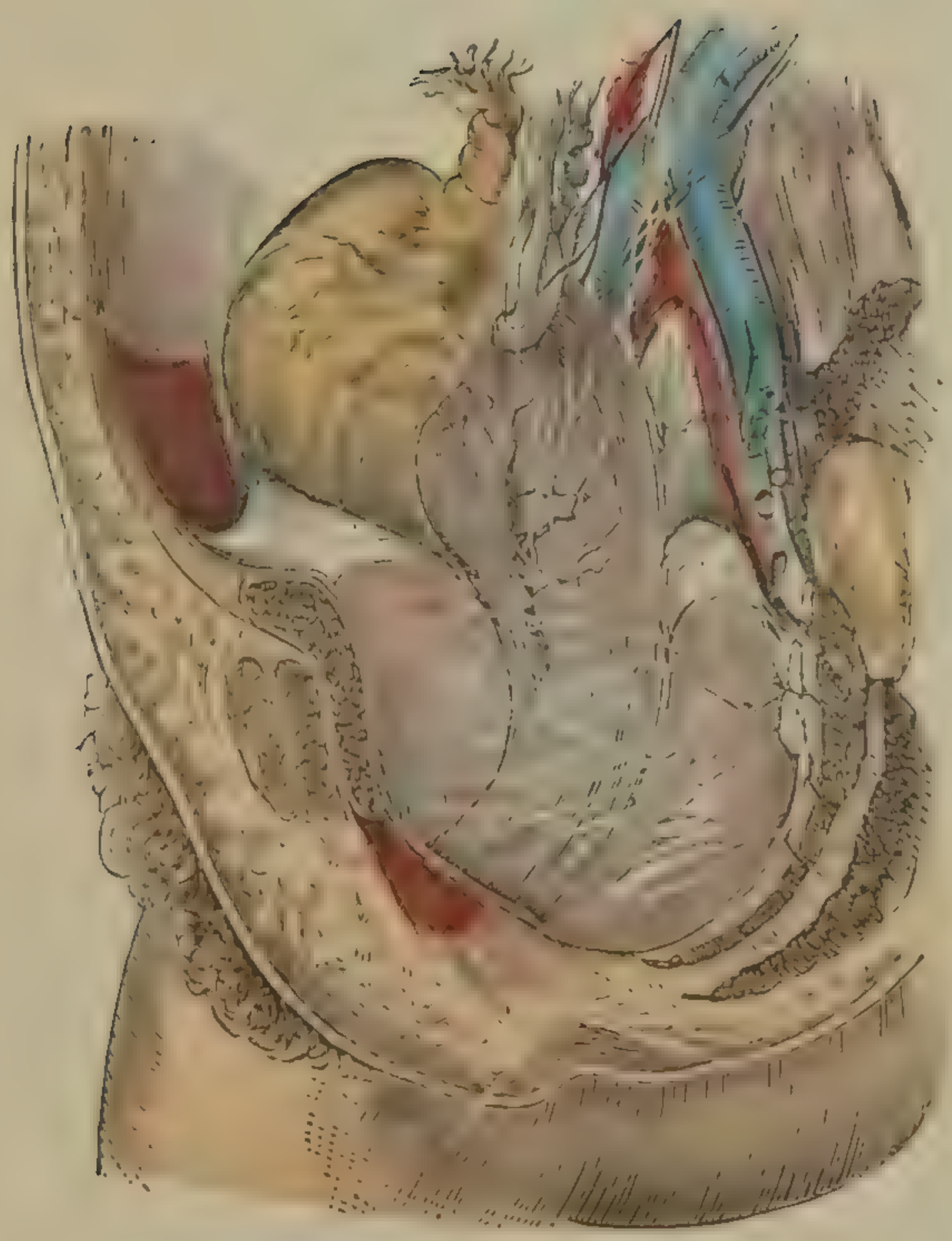
The *ligaments* of the uterus (seen in Fig. 2) have long been regarded by anatomists as the main supports of the uterus; but such an opinion is clearly erroneous. They do, of course, steady the organ in its central position; but the facts that they float loosely in the pelvic cavity, and yield to the enlargement and changed position of the uterus during pregnancy, prove conclusively that they can not be the principal means for maintaining the organ *in situ*.

The *lateral ligaments* are formed by the reflexion of the peritoneum from the anterior to the posterior surface of the uterus, and contain, between their folds, intervening areolar tissue, which allows of their adaptation to the enlargement of the uterus in pregnancy. The *round ligaments* are implanted in the lateral borders of the uterus below the ligaments of the Fallopian tubes, and, passing through the inguinal canal, are attached to the fibrous tissue of the mons Veneris and skin.

The *Fallopian tubes* constitute fibrous cords which support the broad ligaments, while they are enveloped in their peritoneal folds. The canal of the Fallopian tubes is lined by mucous membrane similar to that of the alimentary canal.

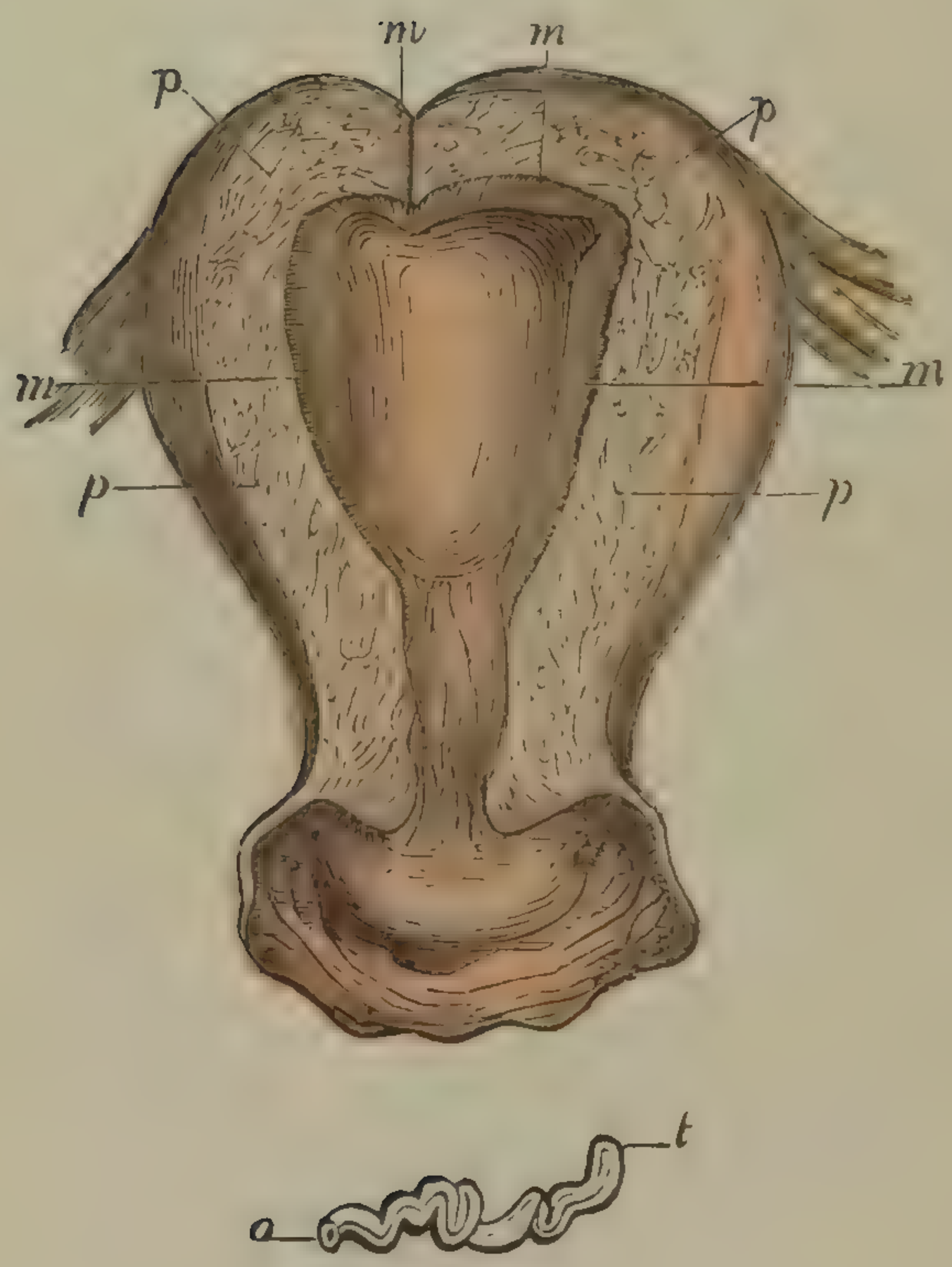
The *ovaries* occupy the upper margin of the broad ligaments, and are situated in the cavity of the pelvis, some two inches on each side of the uterus, and nearly on a

FIG. 7.



NERVES OF THE UTERUS.

FIG. 8.



TISSUES OF THE UTERUS.

level with its fundus. Their internal extremity is connected with the uterus by the *ovarian ligament*, and their outward extremity is fixed to the fimbriated expansion of the Fallopian tube. The proper tissue, or parenchyma, of the ovaries, is formed of small, dense, yet spongious areolar fibers, having their interspaces filled with a yellowish fluid, and the Graafian vesicles interspersed.

The *vagina* is a membranous canal, varying in length and size according to individual peculiarities. In the healthy female, it is a very extensible, yet closed canal. Its upper portion is the principal support of the uterus (assisted to some extent, however, by the abdominal muscles, and slightly by the lateral and broad ligaments), which it embraces, as already described. Its posterior wall is longer than the anterior, rendering its form slightly curved. Its average length may be four to five inches; yet it often exceeds six, and is sometimes less than three. Its lower three fourths lie over the rectum, with which it is connected by the areolar tissue, and its upper fourth is in contact with the peritoneum. Anteriorly, it is in relation with the lower portion of the bladder and urethra. It is partially closed below by the constrictor vaginæ, a small, sphincter-like muscle.

The proper membrane or tube of the vagina is contained between two layers of fibrous tissue, and possesses the characters of erectile tissue. Externally it is surrounded by contractile areolar tissue, and internally lined by a mucous membrane, which is covered by a smooth epithelium, and arranged into transverse folds, or *rugæ*, radiating from a median *raphe*. These rugæ are most numerous in the lower portion of the vagina, and gradually diminish toward the uterus. They are intended, no

doubt, to facilitate childbirth by affording a structure capable of great dilatation; yet M. Curveilhier, and some other physiologists, have erroneously considered them to be organs of sexual sensation.

In females who have experienced repeated pregnancies, the mucous folds become less apparent; excessive sexual indulgence, and a variety of diseases, also tend to relax the mucous membrane, render the rugous structure less marked, and the whole canal dilated, thereby predisposing to prolapsions and other displacements.

The *external organs* of generation comprehend the clitoris, nymphæ, or labia minora, hymen, labia majora, and the mons Veneris, which together constitute the *vulva.*

The *clitoris* is analogous in structure to the male penis, and is the seat of sexual pleasure in the female.* It is situated under the symphysis pubis, just below the junction of the nymphæ, from which it projects about the eighth of an inch. It is often very greatly enlarged and elongated by disease, though such condition does not necessarily increase sexual desire.

Below the clitoris is the *vestibulum*, a smooth, triangular space, at the lower part of which, and just at the upper edge of the orifice of the vagina, is the *meatus urinarius*, or orifice of the urethra.

Churchill remarks: "The exact situation of this opening is important, because we are frequently called upon to introduce the catheter, and, in ordinary cases, it should be done without exposure. The operation is not difficult;

* Recent discoveries in physiology have demonstrated that, notwithstanding the clitoris is the organ of erotic sensibility, a peculiar condition or action, during sexual intercourse, is essential to the production of the pleasurable orgasm on the part of the female. Hence the sexual embrace is often attended with indifference, or even disgust, a circumstance which furnishes a key to unravel the mystery of many of the miseries of incongruity and incongeniality which are heard of in the matrimonial relation.

the patient being placed on her back, and the labia being separated, the point of the forefinger of the left hand should be placed just within the orifice of the vagina, so as to press slightly its upper edge; the catheter should then be passed along the inner surface of the finger, until it reaches the vestibulum, near the edge of the vaginal opening; when there, a very slight movement will cause it to enter the meatus urinarius. Or, the patient may be placed on her left side, in the ordinary position for labor, and the finger carried from behind forward to the vestibulum; the catheter should then be passed along the finger in the direction of the axis of the outlet, and, on reaching the vestibulum, a slight movement will detect the orifice. The operation is more difficult when the parts are swollen or distorted, as happens occasionally from disease, during pregnancy or labor, and after delivery; and if we can not detect the orifice by the touch, we must of course use a light, and then, for obvious reasons, it is better that the patient should be placed on her side."

The *labia minora*, or *nymphæ*, are two lateral folds of mucous membrane with the labia majora, with which they are in contact, and by which they are covered. They extend from just below the symphysis pubis, the anterior commissure of the vulva, to near the middle of the vaginal orifice. They infold the clitoris, urethral orifice, and part of the vaginal orifice, and, in young, healthy persons, are firm and elastic.

The *hymen* is a crescentric fold of mucous membrane, stretched across the opening of the vaginal passage. It is of variable firmness, sometimes so thick and unyielding as to require to be divided by a crucial incision, and not unfrequently it is entirely wanting.

The *labia majora*, or *external lips*, are two folds, composed of mucous membrane internally, and skin externally, extending downward from the mons Veneris to the fourchette. Superiorly, their junction constitutes the anterior commissure of the vulva, and their thickness gradually decreases downward to the fourchette, or posterior commissure. They are covered with hair externally, and thickly studded with sebaceous follicles.

The *mons Veneris* is the cushion-like prominence at the upper part of the symphysis pubis, consisting of thick, adipose tissue under the skin, and covered with hair. Its use, which most authors say is not apparent, is, I think, almost self-evident—to provide against injurious pressure in sexual commerce.

CHAPTER II.

PHYSIOLOGY OF THE UTERINE SYSTEM.

In order fully to appreciate the nature and consequences of pathological changes in the actions or structures of the uterine system, it is necessary to take a rapid survey of the philosophy of its functions.

Menstruation, conception, pregnancy, and parturition, involving all the physiological phenomena of reproduction, have ever been, with medical men and with philosophers, subjects of the deepest interest and of the most devoted study. And, notwithstanding great diversities of opinion have long prevailed, and still prevail, in relation to many topics connected with the generative function, still I think the facts which have been ascertained by recent physiologists will enable us to comprehend satisfactorily all the essential problems involved, at least so far as may be rendered practically important in the treatment of disease or in the preservation of health, either of the individual or the species.

From the period of puberty to the "turn of life"—the cessation of vital activity—the uterine system has (except when arrested by the periods of gestation and lactation) the function of menstruation to perform. And what is menstruation? The earlier physiologists considered the periodical discharge of a colored fluid from the vagina as

an actual hemorrhage or bleeding. This doctrine was superseded for a long time by the notion that the menstrual fluid was a secretion, and not blood at all. Indeed, the peculiarly distinctive qualities of the catamenial secretion have been carefully noted and recorded. But recently the ancient opinion has been revived. It is now said to be a real hemorrhage again; and this is the conclusion I am compelled to adopt, in view of all the facts and the reasoning.

Menstruation, properly defined, comprehends all the phenomena of ovulation—the separation of an ovum from its spongious bed in the ovary, its passage into the uterus, and (unless it be then impregnated) its expulsion from the vagina. The process of menstruation is, on the average, eight or ten days, and sometimes several days more, in going through its different stages. *Menstruation is not necessarily connected with any sanguineous evacuation whatever.* True, such is the usual condition; and it is equally true, I think, that with ninety of every hundred females in civilized society, the menstrual flow is morbid, both in quantity and frequency—an absolute menorrhagia, which is both a source and a consequence of debility. It is a fact, verified by others' observation as well as my own, that, with menstruating females of all ages and occupations, the quantity and frequency of the sanguineous discharge (except when suppressed by disease) is in almost exact inverse relation to the constitutional tone and vigor. It is well known that females of our Indian tribes, and of many tribes and nations whose habits of life are more simple and more hardy, menstruate much less in quantity and less frequently than the females of a more artificial life, whose luxurious living

has enervated the whole body, and whose enervating habits have rendered the whole sexual system weak, relaxed, inflammatory, or in some way morbid.

The females of all the inferior animals of the class mammalia have their genital organs moistened with a mucus, which is merely tinged with fine blood-corpuscles during the season of menstruation; thus proving that the discharge of any appreciable quantity of blood, or other sanguineous fluid, is not essential to prepare the uterine system for the important function of reproduction, nor essential to the menstrual flux. Many females, too, of remarkably good health, have been known to become pregnant without ever experiencing such a discharge as would be considered a proper "flux of the menses;" and hence they have been supposed never to have menstruated at all. It was a mistake arising out of the mistaken view of the real nature of the function.

Now, what is the physiological process in menstruation? Simply this. When the reproductive organs are sufficiently matured, there is a periodical determination of blood to the sexual system; the spongy tissue of the ovaries is distended, and the vascular structure of the uterus is filled with blood. And why? Because an ovum is to be started from its bed, and (if impregnated on its journey) new secretions are to take place in the uterus, to form new structures—the placenta and the fœtal membranes. It is very natural that some degree of blood should exude through the coats of the distended vessels; and it is easy to understand that, if the vessels were, with the whole muscular system, in a state of relaxation or debility, more or less hemorrhage or menorrhagia would occur. If the ovum comes in contact with

the vivifying element of the male semen, this periodical determination of blood to the sexual system, with all the phenomena of menstruation, cease, until the period of gestation has been completed. But, if such is not the case, the menstrual phenomena are repeated every twenty-eight days, or every four, five, or six weeks, until impregnation is effected, or until the menstrual function has ceased altogether, at forty-five or fifty years of age.

The physiological process is precisely analogous to that of digestion, which is equally a periodical function; for when food is taken into the stomach, new elements are to be secreted from the blood; the gastric juice is to be formed; there is a determination of nervous energy to the organ; and an accumulation of blood in its vessels—a *congestion*, as some prefer to call it. When the digestive process is performed, the nervous energy and the circulating fluids find their balance again, and remain in equilibrium until digestion again demands the same vital changes.

So it is with the uterine system in menstruation, or, rather, in the process of ovulation, or *spontaneous ovulation*, as M. Pouchet terms it.

It frequently happens, too, that the breasts partake of the general menstrual excitement, and become full and tender, thus proving the intimate physiological connection between all the organs and parts concerned in the reproductive function. The first menstrual show, whether it be a sanguineous fluid or a mucus streaked with colored matter, is inseparably connected with the evolution of one or more ova or Graafian vesicles, at the full period of maturity. While the "flow of the menses" continues, the vesicle is being prepared for expulsion, and

the evolution of the ovule from the ovarian bed is probably not accomplished till after the menstrual flow has ceased, and perhaps one or two days later; and it may be eight or ten days later still before it is expelled from the uterus.

Conception, therefore, is not liable to occur, except during the period from a day or two subsequent to the beginning of the menstrual effort, and the ten or twelve days following its cessation.

Dr. Bennett, of London, who has published an able work on uterine diseases, and who has very well explained the physiology of menstruation, still regards the menstrual fluid as a *secretion*. He remarks: "It is now universally admitted that the menstrual *secretion* takes place from the mucous membrane lining the uterine cavity. When the *secretion* has commenced, the *blood* may be seen to ooze *guttatim* from the os uteri. After it has ceased, the tide of blood gradually recedes, and in the course of one, two, or three days the uterus is restored to its normal condition, the cervix resuming its naturally pale, rosy hue. If the uterus is the seat of disease, the flux to it begins earlier—often a week previous. After menstruation has ceased, there is also, in disease, a great tendency to the perpetuation of the menstrual congestion, the uterus frequently not appearing to have the power to expel the menstrual blood."

The above quotation seems to me conclusive, that the "secretion," as Dr. Bennett terms the menstrual blood, is no secretion at all, but an actual bleeding; and this view is further confirmed by what Dr. Bennett says in another paragraph: "Menstruation in the human female oscillates physiologically between great extremes, or, in

other words, it may vary to an extreme extent in its mode of manifestation, and yet these variations may be compatible with health, and with the perfect integrity of the uterine organs. Indeed, there is not a greater difference between the human female and the female of the lower mammiferæ, in which the menstrual function only shows its presence by a congestive state of the genital organs and a slight mucous secretion, than there is between different females. Thus, in some, the menstrual flux only shows itself for a day or two, or even for a few hours, throughout life, and is very scanty, whereas in others it lasts seven or eight days, and is always so profuse as to be *almost hemorrhagic*."

CHAPTER III.

UTERINE INFLAMMATIONS.

PRELIMINARY OBSERVATIONS.—All the structures and organs of the uterine system, in common with all other parts of the body, are liable to various kinds and degrees of inflammation. And this inflammation may partake of the various characters—active, passive, phlegmonous, erysipelatous, etc., or terminate in the same way—by resolution, suppuration, ulceration, gangrene, etc.—as inflammatory affections of all other parts or organs. Nevertheless, there are certain peculiarities which distinguish inflammations of the uterus and its appendages from all other morbid conditions. These peculiarities result from the menstrual function, sexual intercourse, child-bearing, modified by various circumstances of dress, occupation, dietetic habits, mental influence, etc.

These circumstances, moreover, explain why inflammation of the vaginal passage, and more especially of the cervix uteri, should be so prevalent among females. So common, indeed, is inflammation of the cervix, that Dr. Bennett considers it as constituting *the* prominent feature in uterine pathology. But I dissent entirely when the Doctor adds: "That such should be the case is a necessary consequence of the anatomical and physiological condition in which the uterus is placed."

I can not regard any disease as the "*necessary* conse-

quence of the anatomical and physiological condition" of any organ; and I imagine that the disease under consideration is the direct and necessary consequence of *abuses* of the physiological condition or function. We have but to look around among the miserably unphysiologica. habits in which our females are reared and educated, to discover ample evidences of the correctness of this proposition.

Dr. Bennett is not alone in mistaking *pathological* for physiological conditions. He says: "With some females, moreover, the uterus seems to be naturally a weak organ. This peculiar delicacy of the uterine system is indicated by the difficulty with which menstruation is at first established, by its irregularity during the first years, by its scantiness or abundance, by the frequent presence of leucorrhœa before and after menstruation—an indication of congestion of the uterine system—and by the existence of pain either for the first few days, or for the entire period. Those peculiarities of menstruation, although apparently morbid, are evidently natural with some females, as I have already stated, and quite compatible with the absence of disease of any kind. They characterize a tribe, as it were, of the human race; a class of females who are more liable than others, in the course of their uterine life, to inflammatory diseases of the uterus, and to all the accidents to which those diseases give rise."

I can not comprehend how, in the common order of nature, any organ can be a *weak* one. To my mind its weakness implies its *unnatural* or morbid condition. But whether the weakness be natural or unnatural, it is certainly a condition predisposing to all manner of diseases.

It were needless to follow authors through their multitudinous and useless nosological distinctions in uterine complaints; for the great majority of them are mere symptoms, and as they arise from common causes, present similar morbid phenomena, and are curable by the same general plan of treatment; they may be, for all practical purposes, grouped under fewer heads.

Inflammation of the Vulva.—Under this head I intend to include the *vulvitis*, *vaginitis*, *vulvo-vaginitis*, *pruritus*, *inflammation of the vulvo-vaginal glands*, *phlegmonous inflammation of the external labia pudendi*, and *inflammation of the vaginal mucous membrane*, of authors, and to comprehend all inflammations of the external genital organs, except ulcers, abscesses, tumors, and displacements. The seat of the inflammation may vary as the various terms indicate, and the disease may be violent or mild, acute, subacute, or chronic.

Symptoms.—These are essentially heat, pain, redness and swelling of the part diseased, with altered function, and more or less constitutional febrile irritation.

When the *labia* are inflamed, there is throbbing pain in the part, extending to the groin, and sometimes swelling of the inguinal glands. The pain is aggravated by the motion, and by the sitting or upright posture. The part affected is also hard and very tender. Suppuration may supervene if the disease be not soon arrested, and in gross persons extensive ulceration and sloughing may result.

Pruritus of the vulva is characterized by an excessive and troublesome itching of the part, often attended with pricking, burning, and scalding sensations. There is a frequent and almost resistless desire to scratch or rub the

part; the vulva and vagina are more or less swollen and inflamed; sometimes the surface affected is severely excoriated, and in rare cases the affection provokes the sexual appetite, degenerating into nymphomania. In this condition sexual connection may communicate to the male a similar affection, which, without due discrimination, might be mistaken for gonorrhœa.

Inflammation of the mucous membrane of the vulva may occur at any period of life, and is the *infantile leucorrhœa* of authors. In adults the pain is generally intense, but the inflammation is confined to a small surface, and attended with a colorless discharge. In infants the discharge is profuse, milky, or purulent, attended with itching, smarting, and scalding sensations, and the inflammation affects the whole mucous membrane of the external genitals, resembling aphthæ, or erythema.

Vaginitis, in its chronic form, is by Churchill and some other authors termed *chronic vaginal leucorrhœa*, an affection belonging rather to the chapter on mismenstruation than the present; and a modification of this affection has been called "white discharge" by Sir C. Clarke, and "inflammation of the glandular structure of the mucous membrane covering the cervix uteri" by others. This will be considered further in a subsequent chapter.

Inflammation from gonorrhœal infection does not differ materially in its symptoms or pathology from *vulvitis*, except in the character of the discharge, which is both purulent and infectious. It is also attended with more heat and scalding in urination, but with less itching, restlessness, and excoriation.

Causes.—Blows, falls, acrid secretions arising from improper food, personal uncleanliness, irritating condiments

or drinks, violence in sexual intercourse, or too frequent indulgence, colds, repelled eruptions, constipated bowels, are most prominent among both the predisposing and exciting causes. Infantile leucorrhœa has sometimes been imputed, though incorrectly, to criminal intercourse.

Treatment.—The remedial plan is exceedingly simple. An abstemious vegetable diet; tepid injections sufficient to secure free motions of the bowels; two or three vaginal injections, daily, of cool or tepid water; one or two hip-baths of a moderate temperature, 70° to 80°, for ten or fifteen minutes; and a daily sponge, or half-bath, of tepid water, if the general vigor of the patient be feeble and the temperature low, or the wet-sheet pack for three fourths of an hour to an hour, if the fever be high and the patient is of fair general strength, constitute the outlines of treatment.

The most important point in the management of the water appliances is the due adaptation of temperature. It is apt to be employed too cold, and thus increase the local irritation instead of exercising a sedative influence. There are cases, however, when very cold water is most soothing, but in all cases the sensations of the patient will guide us correctly in this respect.

An excellent rule in the administration of baths in these cases is, to commence with a comparatively high temperature, and gradually lower it, as the pain, itching, smarting, etc., subside, and then employ them as cold as can be borne without discomfort, to strengthen the local parts and invigorate the general health.

In vaginal injections the water may be employed without any particular regard to quantity, for which purpose a pump syringe is indispensable, as, by its means, a stream

of water can be constantly thrown up as long as the effect is agreeable.

This plan, if judiciously carried out, can hardly fail to benefit promptly, and finally cure all mere inflammations. But it will sometimes happen that the inflammatory condition is connected with or caused by ulcers or tumors requiring surgical treatment, or displacements requiring mechanical management, as will be seen hereafter.

NOTE.—The limits of this work preclude me from going into the details of water-cure processes, dietetics, etc., nor is it necessary, for all who undertake the treatment of these cases will, of course, be well posted in hydropathic literature. For my own views of the general theory and practice of medicine, rules for bathing, the philosophy of diet, methods of preparing food, etc., I must refer to the "Hydropathic Encyclopedia," and the "Hydropathic Cook-Book."

INFLAMMATION OF THE UTERUS—METRITIS—HYSTERITIS.—Inflammation of the whole organ is an uncommon disease, at least in its unimpregnated state. Inflammation of its cervix is, however, of such frequent occurrence, that Dr. Bennett has made it the principal burden of his able book on uterine pathology. He has distinguished the malady before us into *acute metritis*, *chronic metritis*, and *internal metritis*. But he has evidently confounded the symptoms of all the varieties with each other, and these with the symptoms resulting from displacements of the organ.

Other authors, too, more nice in nosology than wise in therapeutics, have undertaken to distinguish, as separate diseases capable of distinct diagnosis, inflammation of the veins of the uterus—*uterine phlebitis*—of the *Fallopian*

tubes, of the *broad ligaments*, of the *round ligaments*, of the *lymphatics*, etc., distinctions which will never be demonstrated except in post-mortem examinations.

What is called *puerperal*, or *child-bed fever*, or *puerperal peritonitis*, is unquestionably an acute inflammation of the womb, involving also, to a greater or lesser extent, the peritoneum. Dr. Meigs (*Treatise on Obstetrics*) is not far from correct when, in speaking of this disease, he says: "It is inflammation of the *womb* alone; or it is inflammation of the *veins* of the womb; or it is inflammation of the *peritoneum;* or it is *metro-phlebitis;* or *metro-peritonitis;* or else a combination of *metro-peritonitis with phlebitis.*" All these speculative distinctions, however, are worth nothing in theory, and much worse than nothing in practice. It is enough for practical purposes that inflammation exists in and about the uterus.

Symptoms.—Acute inflammation of the uterus is attended with severe and deep-seated pain in the hypogastric region, extended toward the ovarian region and down the thighs, and accompanied with sensations of weight and uneasiness in the pelvis. The external abdomen is tender to pressure; and a considerable degree of general fever attends, with hot skin, quick or frequent pulse, furred tongue, nausea, and often vomiting. The bowels are usually constipated, and in some cases the breasts are sympathetically swollen and painful.

On examination, the body of the uterus will be found enlarged, and very painful on the slightest pressure, and the vaginal passage is hot and dry. The easiest position for the patient is lying on the back. There is generally considerable pain in evacuating the bowels, and more or less difficulty in urinating.

Chronic metritis is attended with but little febrile disturbance, and the local symptoms are seldom well marked, except during the approach of the menstrual period, when there is much derangement of the stomach, and great sympathetic irritation of the nervous system. There are dull, aching pains in the uterine region, extending irregularly to the loins, hips, and thighs, which are always increased by walking, especially up and down stairs. During menstruation the pains are often excessively severe. The uterus will be found somewhat tumefied, and more or less painful in some part of its surface, and though quite movable, all attempts to move it are attended with considerable pain. Often there is a sensible protuberance, or irregular knotty swelling, at the most sensitive point, where pressure will occasion sickness at the stomach.

Chronic inflammation of the uterus is, in most cases, attended with some degree of prolapsion or other displacement; and the pale, sallow, pallid countenance, and peculiar cast of features described by authors as pertaining to this disease, may attend various conditions of displacement, where there is little or no tenderness or apparent inflammation of the uterus. It is true, however, that a greater or less degree of chronic inflammation does generally attend all displacement of the organ. And a very striking symptom of chronic inflammation is the flushed countenance, aggravated by the slightest emotion, on the occasion of the menstrual action. Severe nausea is also found to accompany the menstruation. Self-abuse has occasionally induced this disease in young girls.

Internal metritis, or inflammation of the mucous membrane, sometimes termed *uterine catarrh*, is more

frequent than acute inflammation, but much less common than the chronic form. Dr. Bennett has made a distinction between internal metritis, as affecting the lining membrane of the cavity of the uterus, and that confined to the membrane of the cervix. The latter form, which is much more common, he has denominated *cervical catarrh*. This affection is often confounded with that form of dysmenorrhœa which is attended with the formation and expulsion of a preternatural membrane (analogous to that which is secreted on the mucous membrane of the trachea in croup, and on the mucous membrane of the bowels in tubular diarrhœa), and, pathologically, there is but little difference; for dysmenorrhœa is attended with more or less inflammation, and internal inflammation with more or less menstrual disturbance, having the characteristics of dysmenorrhœa, and in either case the peculiar secretion may take place, which adheres to the lining membrane, and is expelled in fragments, with bearing-down and labor-like pains.

The more peculiar symptoms of severe internal metritis are a sero-sanguineous discharge, and a dilatation of the os uteri to the extent of permitting the uterine sound to pass easily into the cavity of the body of the organ. In milder cases there may be only dull, deep-seated, aching pain, with the discharge of a transparent mucus, or muco-purulent matter. The uterus is somewhat swollen and sensitive to the touch, and the menstrual flow is more painful, more frequent, and more abundant than natural, often amounting to flooding.

In *cervical catarrh* the aggregate of symptoms do not differ materially. There is, however, less tenderness about the hypogastrium, less trouble in the rectum and

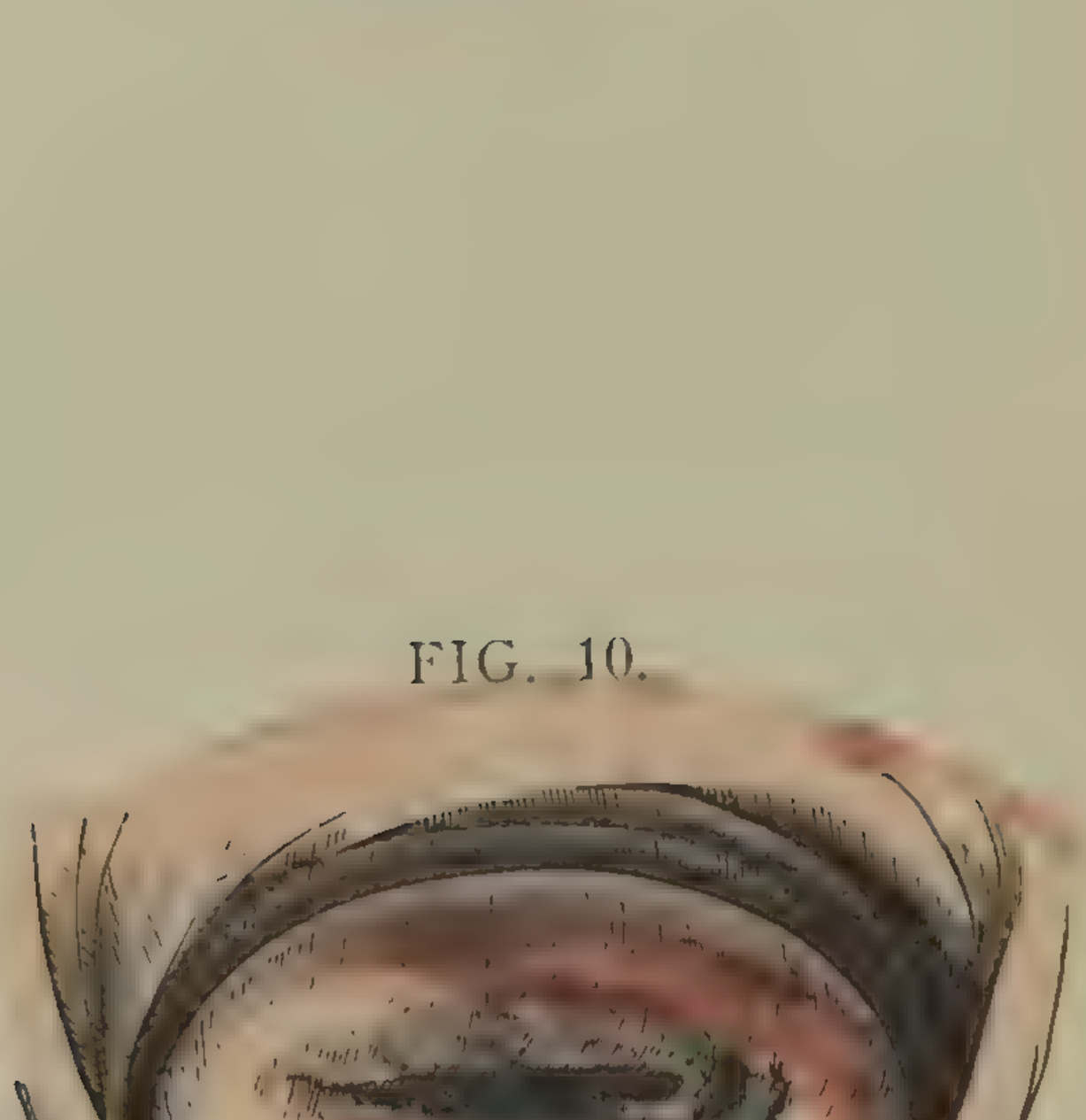
bladder, and a more copious muco-purulent discharge, and the cavity in the cervix is dilated while the os uteri remains closed.

Inflammation of the cervix uteri may affect its lining membrane, its mucous follicles, or its whole substance. In its normal state, pressure does not cause pain; hence tenderness to the touch is almost a pathognomonic symptom of inflammation. The following remarks of Dr. Bennett are valuable: "In the healthy condition, the cervix uteri is perfectly soft and smooth. On being pressed by the finger, no hardness or resistance, indicating condensation of tissue, is felt. There is, at the same time, a certain degree of elasticity about it, the varying degree of which indicates the presence or absence of congestion of the uterine system. In this, the healthy state, the surface of the neck of the uterus is generally unctuous to the touch, the layer of mucus by which it is then covered accounting for this very characteristic sensation. There is also complete absence of pain on pressure. In examining the cervix by the touch, it is advisable to appreciate carefully the state of the entrance to its cavity, as slight local induration existing on or within the margin of the lips, or its open condition, might otherwise escape notice. The palp of the finger should be brought successively to bear on each part of the surface of the organ—above, below, and on each side, which may be easily accomplished. Not only does this mode of examination contribute to render our sensations of density and smoothness more perfect, but it also enables us to judge of the size and freedom from adhesions of the body of the uterus itself. In the unimpregnated state, and when not morbidly enlarged, the

FIG. 9.

VIRGIN CERVIX.

FIG. 10.



VIRGIN CERVIX ULCERATED.

body of the uterus, as we have seen, moves readily when pressure is made on the neck; pressure thus applied acting as on one extremity of a lever—raising the other in the opposite direction. If these facts respecting the healthy uterine neck are borne in mind, the detection of disease becomes comparatively easy."

The subjoined engravings represent very accurately the distinctive characteristics between the healthy and diseased uterine cervix, as commonly found in practice. Fig. 9 exhibits the appearance of the healthy cervix in the virgin; and Fig. 10 the virgin cervix as changed by inflammation and ulceration.

Inflammation of the Ovary.—*Ovaritis.*—This is a rare disease, and not easily distinguished from inflammation of the uterus. The pain is more confined to the ovarian region, where there is a slight swelling or puffiness, which is tender to pressure. An accurate diagnosis, however, is of no practical consequence, for the treatment is precisely the same as in the case of inflamed uterus.

Most authors recognize, as distinct maladies, inflammation of the Fallopian tubes and uterine ligaments. But we are perfectly safe to regard all such cases as inflammation of the pelvic viscera, and treat it as above.

Puerperal or child-bed fever is unquestionably an acute inflammation of the uterus and its appendages, usually extending over a large surface of the peritoneum. It is attended with the usual concomitants of fever, chills, rigors, etc., followed by heat and dryness, furred tongue, rapid pulse, while more or less of the abdominal and pelvic structures evince all the characteristics of

acute inflammations—pain, heat, tension, and extreme tenderness of the uterine region and abdomen. The bowels are usually obstinately constipated, although in some cases diarrhœa occurs, and the lochial discharge is suppressed.

Nothing can exceed the discrepancies between medical authors, and the utter confusion of medical books, respecting the nature, causes, or proper treatment of this fever; and acute disease has ever evinced, under the bleeding and drug medication, a greater ratio of mortality. In some instances, when it has prevailed epidemically, *every patient has died.*

And yet, it seems to me, the whole matter is plain enough. One class of authors, regarding the disease as essentially inflammatory, have employed bleeding, and other antiphlogistic measures, and have not been successful. Another class, regarding it as essentially typhoid, have employed stimulants, and have been unsuccessful too. Now, the truth is, the disease is *both inflammatory and typhoid*, and requires *neither antiphlogistication nor stimulation.* It is a local, acute inflammation, with a constitutional febrile affection of the typhoid type.

This view removes all the confusion in its pathology, and all the difficulty in its treatment. The various degrees of severity, the irregular character of its symptoms, the differences in the apparent types of the attending fever, and the greater or less extension of the local inflammation, are all referable to, and easily explained by, the various circumstances attending parturition, and the different conditions of pregnant women in respect to local diseases and general health.

Causes.—In addition to the causes assigned in treating of vulvular inflammation, may be mentioned frequent abortions, drugs and doses administered for mismenstruation, and irritating and astringent injections. In my opinion, the anodyne draughts, the occasional bleedings, the delicate viands, and the sedentary habits so commonly recommended to pregnant females, have a greater influence than is generally supposed in predisposing to uterine inflammations and child-bed fevers.

Treatment.—The general plan of management recommended for the treatment of inflammations of the vulva, applies also to all the cases before us, with the difference that here we have a more extensive area of local inflammation, and a constitutional fever. For these conditions, tepid, cool, or cold cloths, covered with dry flannel, are to be constantly applied to the abdomen, so long as the pain and tenderness continue. The temperature of the water should be regulated by the sensations of the patient, as in the former cases.

Hip-baths, moderately cool—65° to 75°—when the patient can sustain the sitting posture without distress, are here peculiarly serviceable. The general feverishness is to be managed precisely as a simple fever, the circulation and temperature of the patient being the guides for the strength, and length, and temperature of the baths. The fever will be either *high—inflammatory*—with general heat of the surface, and a full, quick, but not very frequent pulse, or it will be *low* or *typhoid*, with irregular heat, a weak, frequent pulse, and great mental disturbance. In the former case, the wet-sheet pack, or cold ablutions, are preferable; and, in the latter case, frequently sponging the surface with tepid water, is the

most appropriate. In all cases, great care should be exercised in guarding against internal congestion, especially of the brain, by keeping the extremities warm, to which end warm foot-baths, or bottles of hot water applied to the feet whenever they are inclined to be cold, and the occasional application of cold wet cloths to the head, will be necessary.

Water may be drank according to thirst, and the diet, so long as the constitutional disturbance amounts to a continued fever, should be restricted to gruel and toast, or apple water.

In the management of peritoneal inflammation—puerperal or child-bed fever—it is sometimes necessary, when the lochial discharge has been suddenly suppressed, and the pain in the head is intense, to foment the abdomen, or to apply a succession of warm wet cloths until relief is obtained; after which the ordinary wet dressing may be applied. Copious tepid injections are sometimes indispensable to secure a free action of the bowels.

CHAPTER IV.

UTERINE ULCERATIONS.

The diseases which properly belong to this chapter comprehend all the organic lesions which authors have described under the names of cauliflower excrescence of the cervix uteri; erosive or simple ulceration of the cervix; corroding ulcer of the uterus; scirrhus and cancer of the uterus, and syphilitic ulceration of the vulva and uterus.

Cauliflower Excrescence.—This is the *vivaces* and the *Dégénérescences vasculenses* of the French pathologists. It has also sometimes been called *fungus cancer*, *fungus hematodes*, and by Dr. Hooper and others *polypoid cephaloma*, and by Dr. Baillie *polypus hematodes*. It is a morbid growth from a part or the whole of the os uteri, and sometimes from the uterine cavity. It is a very rare disease, the majority of physicians, probably, having never met with a case.

Symptoms.—The first indication of its existence is an unusual moisture, soon followed by a copious watery discharge from the vagina. As the discharge increases, it becomes streaked with blood; profuse hemorrhages soon follow; and these are excited by digital examinations, by sexual intercourse, and by the evacuations of the fœces. Debility succeeds, the digestive organs become

disordered, and the patient dies from exhaustion, which is often attended with dropsical effusions.

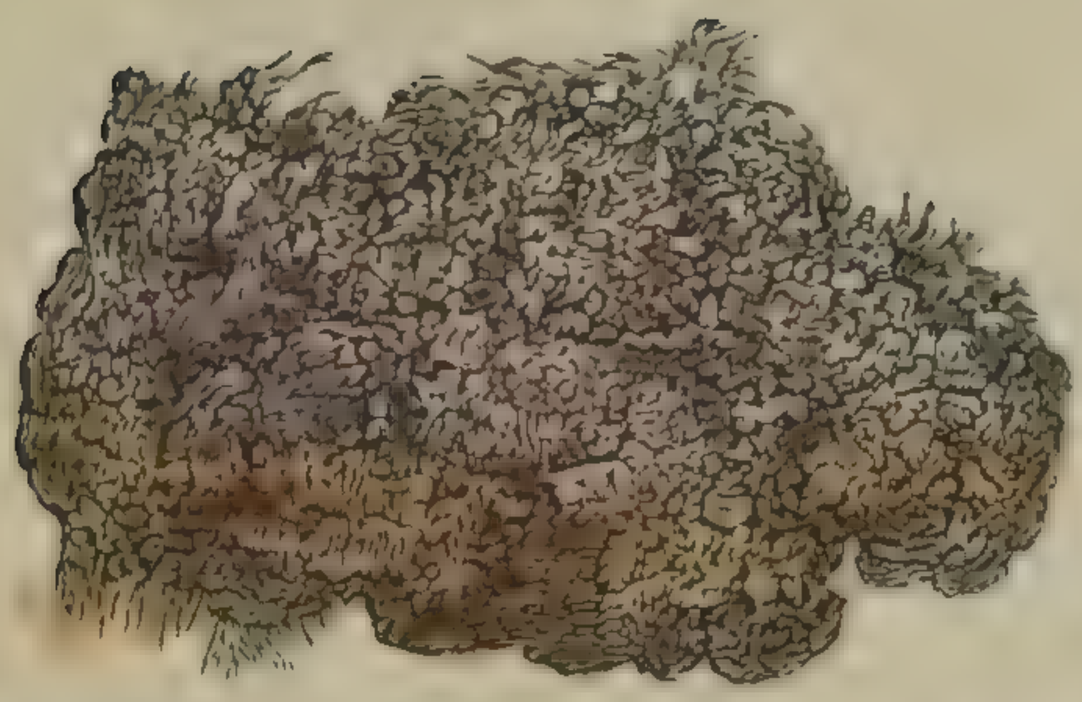
A vaginal examination discloses a highly vascular tumor, of a bright flesh color, with a granulated surface, or a surface with numerous small projections. It is limited to the uterus, and if removed grows again very rapidly.

Fig. 11 is a representation of the diseased structure, and Fig. 12 represents the appearance of the uterus of a patient who died of the disease.

There is a modification of this disease in which the excrescences resemble white currants. It is accompanied with an abundant serous discharge, alternating sometimes with hemorrhages.

Treatment.—The records of medical science promise little in the way of medication. The frequent injection of cold water, keeping the bowels entirely free by means of tepid injections, confining the patient to a plain, abstemious vegetable diet, and avoiding all sources of general or local irritation, may retard its progress; but if these measures fail, we are taught in medical books that we can only prolong life by removing the excrescence with the ligature. It may grow again, but death is certain without the operation, and there is a possibility of saving life by its means. The canula of Gooch, or that of Leuret, is a suitable instrument for the ligation. The tumor will separate in two or three days after its application. I would always cauterize the spot from whence the tumor is removed, either with the hot iron, sesqui-carbonate of potash, or nitrate of silver; and I would prefer them in the order named. By means of the speculum, cauterization can be performed exactly at the proper point.

FIG. 11.

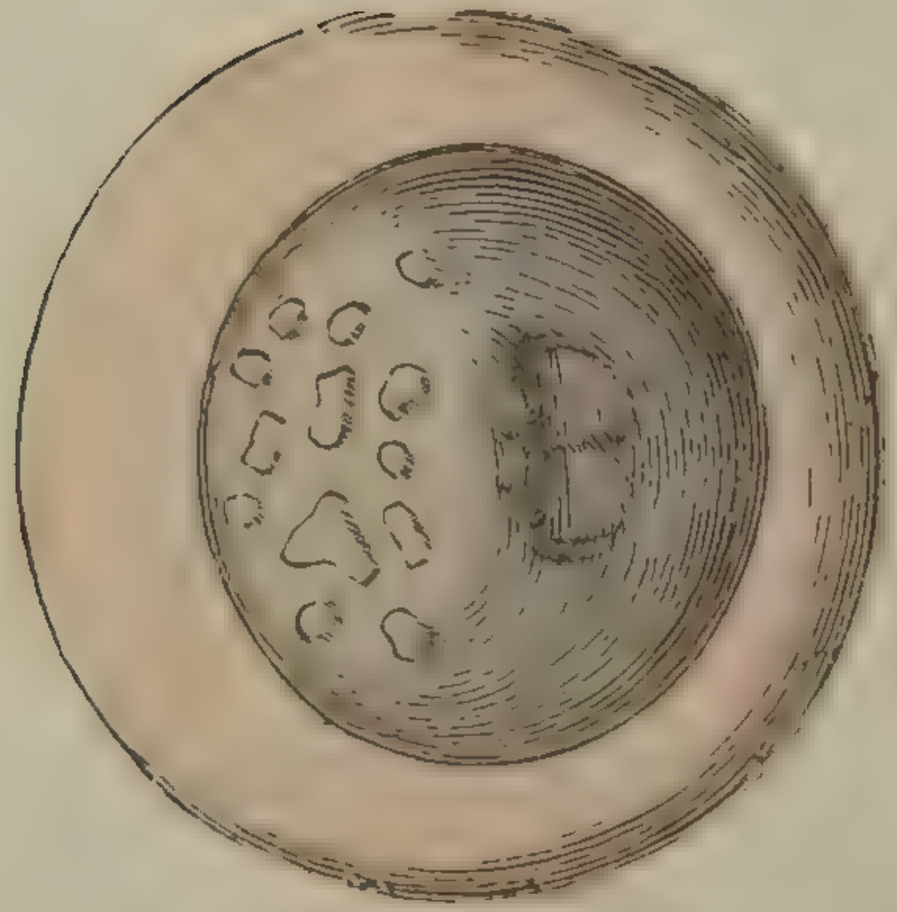


CAULIFLOWER EXCRESCENCE.

FIG. 12.

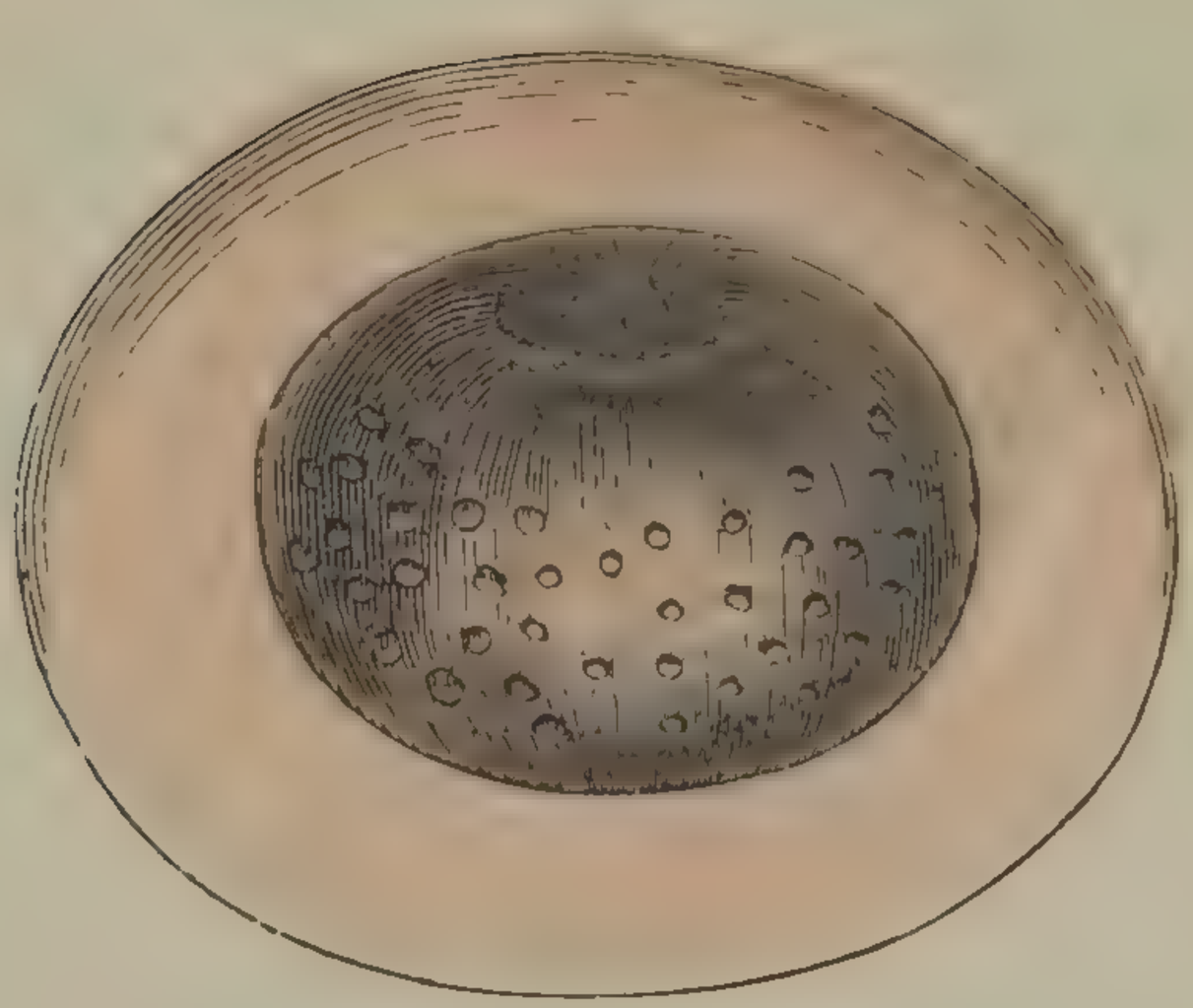
UTERUS AFFECTED WITH CAULIFLOWER EXCRESCENCE.

FIG. 13.



EROSION OF THE CERVIX.

FIG. 14.



EROSIVE ULCERATION.

Erosion of the Cervix Uteri.—This term is applied by some authors to a swollen, spongy, red, and puffy condition of the cervix, which others have denominated *granular ulcer*, *bleeding ulcer*, *cockscomb granulation*, etc.

Symptoms.—There is an aching pain in the back, increased by walking or standing, a whitish or yellowish discharge, occasionally tinged with blood. To the touch, the edges of the ulcerated surface only feel somewhat elevated, but the eroded surface has lost the soft, velvety feeling of healthy mucous membrane. Examined by the speculum, the cervix appears of a deep red color, as if bruised, with minute specks of ulceration, which may afterward coalesce. The erosion appears as if the mucous membrane has been peeled off, and is extremely superficial.

Fig. 13 represents the most common appearance of the cervix in erosive ulceration. In Fig. 14 is seen a less frequent modification of the same disease.

Treatment.—Cauterization is the universally acknowledged remedy; but authors differ much in relation to the best kind of caustic application. Nitrate of silver will, no doubt, succeed in many cases; nitric acid is still more effectual. In Paris, the hot-iron cautery is just now extensively employed in the treatment of this and other ulcerous affections and morbid growths of the os uteri and cervix; and it is said to be equally successful, and, on the whole, less painful than the ordinary caustic applications.

But still my own experience, and that of several other practitioners who have given much attention to this particular disease, give preference to the carbonate of potassa, or potassa fusa, as either a mild or strong

application may be necessary. In the great majority of cases the former is amply sufficient.

Corroding Ulcer of the Uterus.—This term has been applied to a malignant ulcer which sometimes forms in the uterus, and has been mistaken for cancer. Drs. Baillie, Denman, Burnes, John Clark, and Sir C. M. Clarke, have very well described it. It is the *ulcerous cancer* of Bouvin and Düges.

Symptoms.—The disease is preceded by leucorrhœa, sensations of heat and uneasiness in the pelvis; this is sooner or later followed by profuse hemorrhage, which is often mistaken for excessive and irregular menstruation. The pain may be burning or lancinating; and in some cases there is but little pain, yet great weakness and sense of weight in the back.

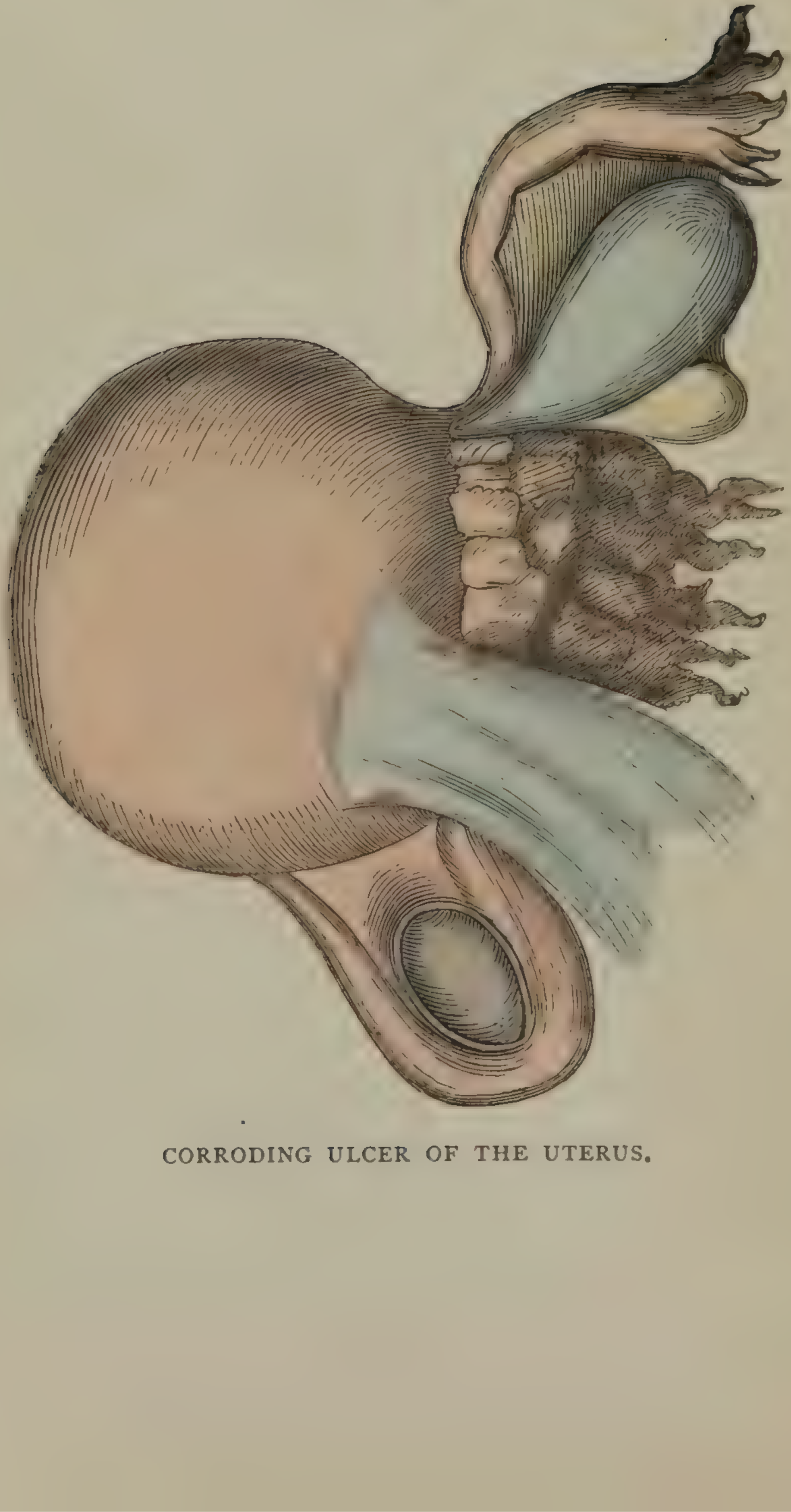
As the ulceration spreads, the discharge becomes thin, ichorous, and offensive, and the constitution declines, the appetite fails, the pulse becomes small and frequent, and a low fever supervenes.

A vaginal examination discloses a rough, ragged surface on the cervix uteri. The ulceration is obviously circumscribed, though its situation and direction may vary. Churchill mentions, as an important element in the diagnosis, "the remaining portion of the uterus is scarcely at all enlarged, and the contents of the pelvis are movable."

As the ulceration progresses, it may extend either circularly, or along either the anterior or posterior surface, sometimes even opening into the bladder or rectum.

Ultimately, the vulva becomes excoriated by the acid discharge, and hectic fever or hemorrhage closes the scene.

FIG. 15.



CORRODING ULCER OF THE UTERUS.

Fig. 15 is a representation (taken from Bouvin and Düges) of a cancerous or corroding ulcer of the uterus.

Treatment.—The healing art can promise little more in this than in the preceding malady. The "old-school" appliances—leeches, counter-irritants, cataplasms, narcotics, chloride injections, mercurial alteratives, iodine, hemlock—have been tried in vain. The only ground of hope is by a rigid application of the "hunger-cure," with strict attention to all the circumstances of the general and local health, and, when the ulcerous surface is small and well circumscribed, its destruction with caustic. In this case, I regard potassa as the best agent. It may be applied, as in the former case, by the aid of the speculum. When the disorganization of structure has extended beyond the reach of complete cauterization by means of the speculum, the sesqui-carbonate of potash may be employed, as less dangerous to the healthy tissues. Churchill recommends cauterizing with strong nitric acid, once in one, two, or four weeks, not, however, with the hope of effecting a cure, but of prolonging life.

Scirrhus and Cancer.—This disease differs from the corroding or cancerous ulcer, in the fact that a hardening of the substance of the part affected—scirrhus—precedes the ulceration—the cancer.

Description.—The first perceptible change in a structure affected with scirrhus, is an increase in size and density. Dr. Copland remarks: "The scirrhous structure, when fully developed, consists of a firm, hard, rugged, incompressible, and unequal mass, the limits of which are not distinctly defined. Its color is generally of a light gray; and, when cut into thin slices, it is semi-

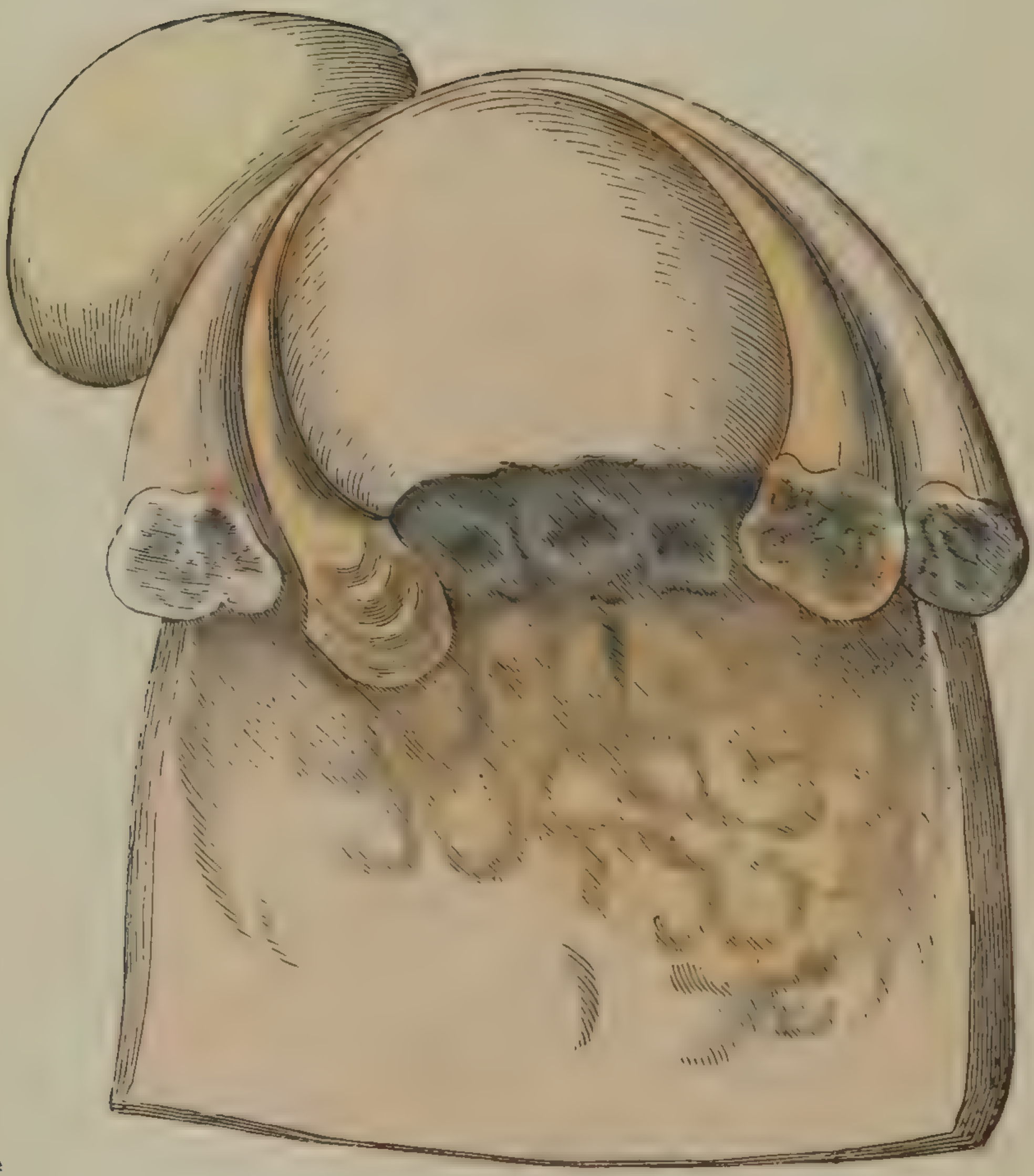
transparent. Upon close inspection, it is found to consist of two distinct substances—the one hard, fibrous, and organized, the other soft, and apparently inorganic. The former composes the chief part of the diseased mass, and consists of septa, which are opaque, of a paler color than the soft part, unequal in their length, breadth, and thickness, disposed in various directions; sometimes forming nearly a solid mass; in other instances, a number of cells or irregular cavities, which contain the soft part. This latter is sometimes semi-transparent, of a bluish color, and of the consistence of softened glue; at other times more opaque, softer, somewhat oleaginous, and like cream in color and consistence."

"When carcinomatous tumors," says Dr. Baillie, "are cut through with a knife, they offer a good deal of resistance, and appear sometimes as hard as cartilage. The cut surface presents an appearance of white lines, which run pretty regularly with regard to each other, but the direction of which vary according to the shape of the tumor. The white lines do not indicate malignant disease."

The scirrhous state of the cancerous disease may continue an indefinite time; but eventually the hardened mass begins to soften and ulcerate, the soft or inorganic substance being resolved into an ichorous and exceedingly fetid matter. The glands of the groin are apt to become contaminated with the cancerous matter, and depositions also harden and agglutinate the areolar interspaces among the pelvic viscera.

The ulceration most frequently commences in the vagina, around the mouth of the womb, and, extending along the cervix to the body, destroys the greater part of the organ.

FIG. 16.



CANCEROUS DESTRUCTION OF THE UTERUS.

It is supposed that the various proportions of the soft, inorganic matter, like glue, and the hypertrophia, or hardened areolar tissue, are the causes of the different kinds of cancer, which have received a variety of names—as, *cephaloma*, *hermatoma*, *sarcoma*, *fungus hematodes*, etc.

Fig. 16 represents a cancerous ulceration of the uterus, which has destroyed the cervix and a portion of its fundus.

Symptoms.—The incipient symptoms are slight, hence the disease is seldom suspected until it has made considerable progress. Irregular menstruation, uneasiness in standing or walking, and a sense of weight pressing down upon the perineum, are among the most constant of the early symptoms. When the morbid deposition has increased the bulk and hardness of the organ considerably, there is a distressing pressure upon the rectum and bladder, and the weight of the uterus occasions some degree of prolapsus. There are now and then lancinating pains, but they are not very severe until the disease has progressed to near the point of ulceration, at which time, also, the mucous discharge, which has not been much increased, will be striated occasionally with blood.

On a vaginal examination, the cervix and body, as far as can be reached, are found hard and tumefied, and the edges of the os uteri present one or more deep notches. The whole womb is generally about equally enlarged. Through the speculum, the cervix appears tense, swollen, shining, of a deep red or brownish color, and sometimes spongy.

As the cancerous stage approaches, some portion of the hardened organ may be felt softer than the rest, and

this being most tender and painful, indicates the place where ulceration will begin its ravages.

When the malady changes from scirrhus to open cancer, the pains are greatly aggravated, frequent hemorrhages occur, and the vaginal discharges become intolerably offensive. The pains may be lancinating or burning, and aggravated occasionally by intense paroxysms, commencing in the uterine region, and shooting through the loins and pubes, and down to the anus and thighs. In a few cases, however, there is little or no pelvic pain at all.

The hemorrhages are generally most severe soon after ulceration has commenced, gradually becoming less in quantity, with long intervals, as the disease advances.

The color of the discharge is of a dirty white, green, dark brown, or black, and occasionally tinged with blood, Generally, however, it is a copious and thin serous fluid, the *cancerous sanies* of authors.

As the disorganizing process goes on, the ulceration may involve the bladder or rectum, or both, adding still more to the fearful sufferings of the patient. As the constitutional powers are worn down by the local irritation and repeated hemorrhages, a slow fever, night sweats, dry, shriveled, yellow, or leaden skin, diarrhœa, etc., evince the *cancerous cachexia* of authors, and the utter prostration of the vital powers.

Diagnosis.—Churchill (*Diseases of Females*) has carefully drawn up the diagnostic indications as follows: "*Scirrhus* may be distinguished, 1. From *simple induration*, by being less red and vascular, but harder and lobulated; by the deposition into the surrounding tissues, and by the diminishing mobility of the uterus. 2. From

fibrous tumors, by being more lobulated, less defined, and ultimately by the pain and ulceration. 3. From *tubercles, etc., in the uterus*, by the hardness and extent of the disease, by the pain, discharge, and course of the complaint. 4. From *moles, hydatids*, etc., by the greater hardness, and the spreading into the neighboring tissues, and by the termination of the two diseases. 5. From *early pregnancy*, by the hardness of the uterus, its slow increase, by the persistence of menstruation generally, and by the absence of all the signs of pregnancy.

"The diseases with which *cancer* is most likely to be compounded are, simple ulceration of the cervix uteri, corroding ulcer, and syphilitic ulceration. The characteristics upon which the diagnosis must be founded are, the local deposition, the extent of ulceration, the character of the affected tissues, the fixedness of the uterus, the great general distress, the fever, and the fatal termination. It may be distinguished, 1. From *simple ulceration of the cervix uteri*, by the increased size of the womb from morbid deposition; by the greater depth of the ulceration; by the fœtor of the discharges; by the immobility of the uterus; and by the severity of the constitutional symptoms. 2. From *corroding ulcer*, by the immobility of the uterus, and by the filling up of the pelvis by morbid deposition. 3. From *venereal ulcers*, by the morbid deposition and immobility of the uterus; by the depth and irregularity of the ulcerated surface, by the severe pain, and the intractable nature of the complaint."

Treatment.—This disease has been, under orthodox medical treatment, uniformly fatal; yet I can not admit the doctrine of its *necessary* fatality. It is cer-

tainly true that cancerous tumors and cancroid growths of all descriptions in other situations are very frequently cured in *irregular* practice; and there are at this time "quack doctors" in our country who, if we can believe the evidence of our own senses, and credit the testimony of their patients, are curing the majority of cancerous affections which come under their medication. Their plan of treatment is mainly local, and consists essentially in the application of *disorganizing* agents—such chemical or caustic articles as will destroy the vitality, and decompose the substance of the morbid growth, without seriously affecting the vitality or integrity of the normal parts or tissues. And notwithstanding the management of cancers in the uterus or its appendages is attended with peculiar difficulties, I can not see that such difficulties should be, in all cases, nor in a majority of cases, insurmountable.

The principle seems to me perfectly demonstrable, that chemical agents exist which will destroy morbid growths without acting materially upon healthy tissues. And this has been abundantly proved in the cases of warts, corns, vegetations, polypi, fungous excrescences, and, indeed, cancerous and cancroid tumors.

Nor is the reason of this difficult to comprehend. All abnormal productions—all morbidly organized products—have a lower grade of vitality, and a different arrangement of organic particles from the normal structures; hence they may be, they must be, obnoxious to the chemically destructive action of some agents which the vitality of healthy tissues could successfully resist.

Now, what we are most concerned to know is, what

are the best and safest agents *chemically and physiologically* incompatible with the carcinomatous organization—with all malignant changes of structure, which we can employ? If the medical profession had long since adopted this theory, and directed their inquiries in the line of its practical application, instead of passing off the subject as "beyond the reach of medical science," we should, doubtless, before this time, have had a very different *prognosis* on the subject.

I have fully satisfied myself that all "cancer doctors," whether in the regular profession or out of it, have agreed in the principle above indicated in their prescriptions for the treatment of the disease, whether they have had any theoretical recognition of that principle or not. All their remedial measures are resolvable into the single idea of *cauterization*. And caustics of various degrees of strength—vegetable, alkaline, saline, and metallic—have, at various times, and with different physicians, been in repute as cancer antidotes or specifics. Powdered blood-root, hellebore, blue flag, mandrake, inspissated juice of sorrel, and red clover, and other vegetable styptics or irritants, as they are called, but caustics they are in reality, have destroyed nasal and vaginal tumors of the cancerous and polypus kind. So has iodine, iodide of potassium, arsenic, sulphate of zinc, nitrate of silver, sesqui-carbonate of potassa, caustic potash, nitric acid, the red-hot iron, etc.

Some of these things destroy morbid growths by exciting suppurative inflammation; others appear to induce their removal by softening their substance—which I suppose means destroying their vitality—so that the absorbents can take them up; and others, like potassa and fire,

completely decompose them, so far as they are brought into contact with them.

Now, in all these ways, or rather in this one way, all these agencies have cured cancers, and may cure them again. But there is a choice. Some of them are dangerous to the general system, as preparations of arsenic, which, while *eating away* at the tumor, may be absorbed, and destroy the life of the patient. The vegetable caustics are not reliable generally, though they will succeed in some cases, from want of strength. The alkaline caustics are, in most cases, the most efficient and the most safe. They can be employed of any desired degree of strength, from the mildest solution of the carbonate or sesqui-carbonate of potassa, to the strongest potassa fusa, and in this way every vestige of the malignant structure, when it is accessible, can be destroyed.

The plan of managing uterine cancers, substantially as recommended by Dr. Hill (*Eclectic Surgery*), is the most rational, and, I may say, the only rational plan I have found recorded in any standard medical work of any school; and even this would promise still better results if employed in conjunction with the regimen of the hydropathic school.

In consists essentially in injecting warm water frequently until the extreme sensibility of the diseased part is in some degree overcome; then follow with a weak alkali, or a solution of soap, after a while adding a little mild caustic, and making gradually stronger as the patient can bear it, until finally a saturated solution is employed, while powdered caustic may be applied to the cervix uteri. The result of this treatment is a gradual softening or disorganization of the cancerous mass.

The injections must be thrown into the womb, for which purpose a silver catheter, or other convenient tube, must be carefully introduced into the os uteri, and the fluid injected through it by means of a syringe.

The general rule is to follow up the treatment as actively as the patient can bear. The injections should be employed once or twice daily, suspending them occasionally if the tenderness and irritation increase, and substituting simple warm water, with external fomentations.

The powdered caustic (after the irritation has been measurably subdued by warm water) may be applied to the cervix once, twice, or thrice daily. It can be introduced by putting a piece of wax or black salve on the end of the finger, with a cup-like depression in it, filled with the powder, from which the part may be rubbed or sprinkled.

The sulphate of zinc, though it scarcely acts upon the skin, will very rapidly soften and disorganize the structures beneath; but as it is liable to act also upon healthy tissues, it can only with propriety be applied to such parts of the tumor as are most removed from the sound tissues, or from the vicinities of blood-vessels.

This treatment may require several months, or a year or two, to effect a cure; but as the "authorities" give us no encouragement from any other plan, except to see the patient die in excruciating agony, we ought to try this until some better can be devised.

The most thorough application of this plan could hardly augment the sufferings of the patient, for the reason that the morbid sensibility and pain subside as the tumor becomes disorganized.

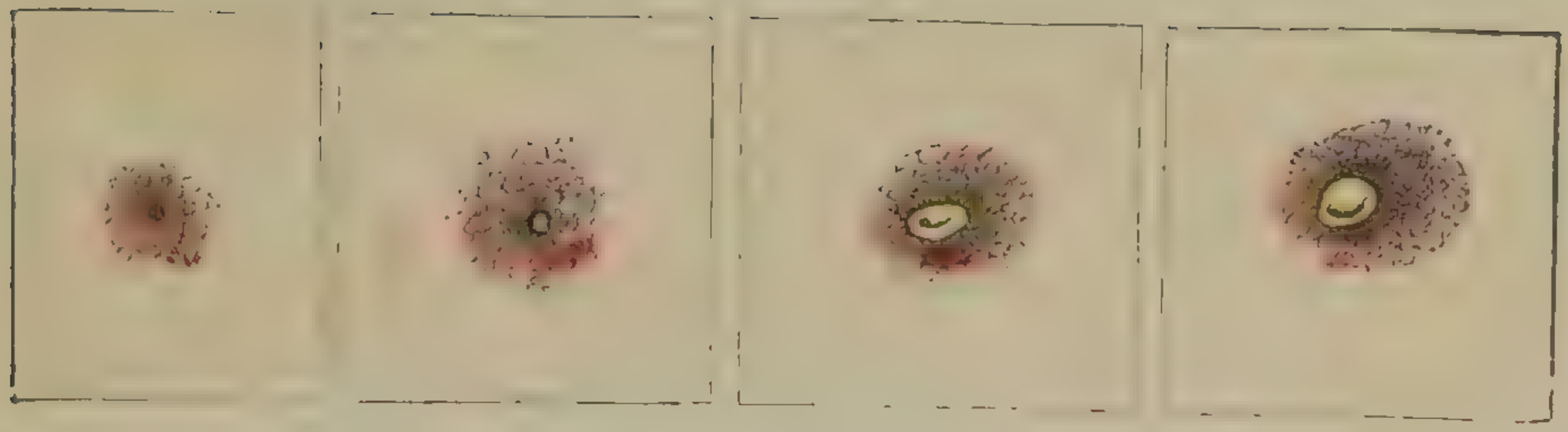
Syphilitic Ulceration.—Venereal chancres and ulcerations generally affect primarily the vulva or mucous membrane of the vagina, where they appear in the form of erosive granulations; but occasionally they are found upon the neck of the uterus. In the absence of evidence of impure sexual commerce, it may be difficult to distinguish this from simple or erosive non-syphilitic ulceration; and, practically, it is only important on account of the property of instantly destroying the virus of a chancre with strong caustic, as soon as it is discovered, provided it manifests the least corrosive, eating, or spreading tendency. When seated near or around the os externum, chancres can easily be seen by a separation of the labia pudendi; but when deep-seated, an examination with the speculum is indispensable to a certain diagnosis.

Diagnosis.—Although the practical eye will often detect the specific character of chancres, or syphilitic ulceration, at a glance, it is difficult to establish a clear diagnosis for the inexperienced. Of course, the history of the case will afford a strong presumption for or against the existence of venereal virus, yet we can not always depend on correct representations on the part of the patient.

Fig. 17 (from Acton) is a very good representation of the usual appearance of chancres, or syphilitic ulcers.

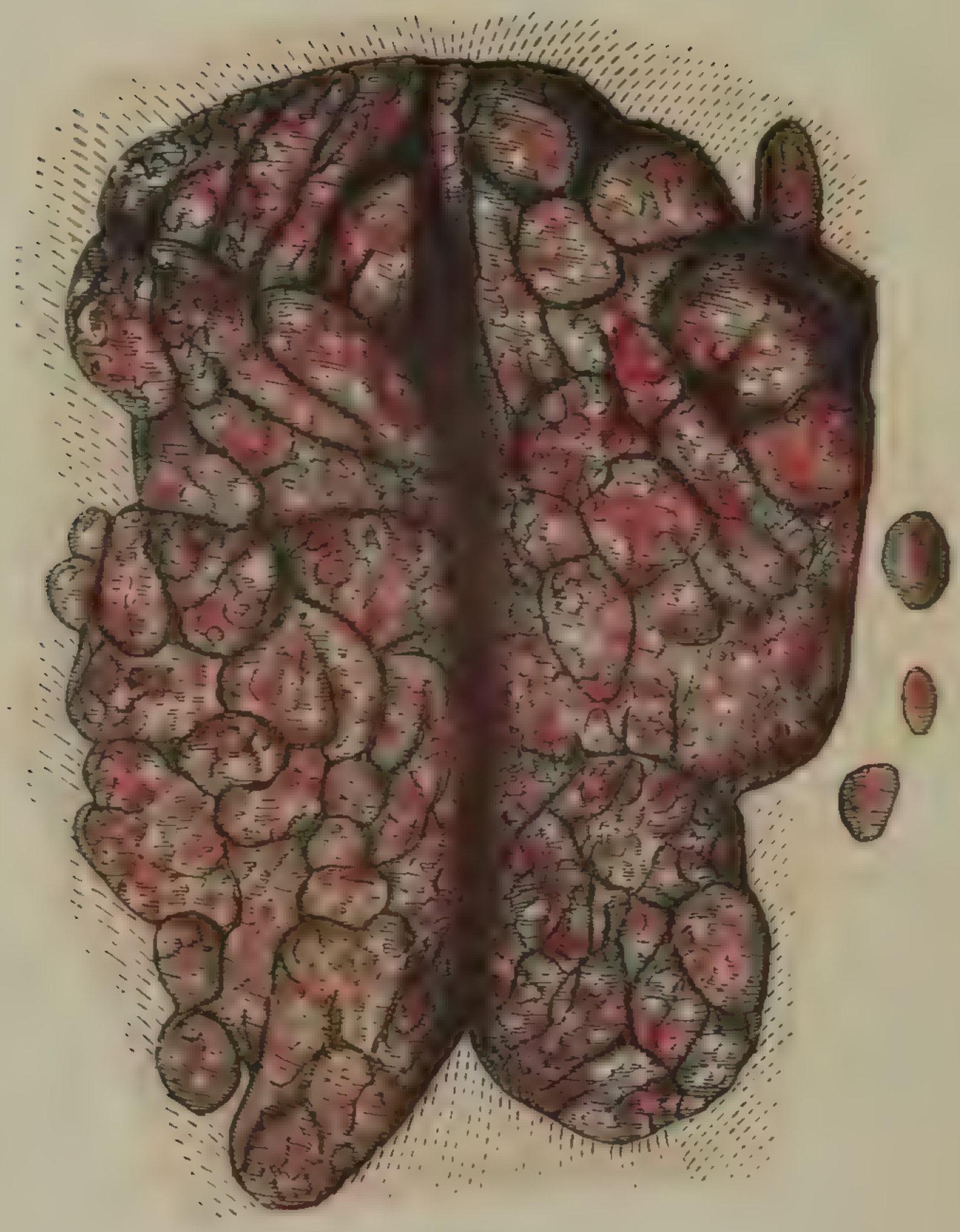
A chancre is generally first noticed as a thin scab, or a small pustule, or a very small ulcer. This may dry up and leave a scab, or the matter may extend deeper underneath the skin and form an abscess, very much resembling, in external characteristics, a common boil. Usually, chancres have a circular or oval form; but not

FIG. 17.



VARIOUS FORMS OF CHANCRE.

FIG. 18.



WARTS AND VEGETATIONS.

unfrequently they commence as very superficial ulcers, which, coalescing, present merely the appearance of an excoriated surface. After spreading to a certain extent, they frequently become stationary and indolent for a longer or shorter period, and then, instead of a corroding virus being secreted, little rose granulations appear, followed by cicatrization.

Treatment.—There is nothing peculiar in the required treatment of syphilitic inflammation or ulceration, except the importance of destroying the malignant and infectious character of the ulcer or chancre as soon as there is the least appearance of suppuration or pustulation. The application should be strong enough to destroy all the exposed surface, so as to leave a new sore, which will, if taken early enough, heal up as readily as a common burn. If the chancre has existed for a considerable time, several applications may be necessary. As a general rule, I cauterize syphilitic sores as often as they manifest an appearance of *eating*, or corrosion. I have employed crystallized nitrate of silver, aqua fortis, and sesqui-carbonate of potassa, with about equal success. In all other respects the case is to be managed precisely like ordinary vaginal or uterine inflammation.

NOTE.— *Vegetations*, or small, wart-like excrescences, (Fig. 18) sometimes exist in the vulva. . They are no evidence of venereal disease, though sometimes connected with it, and produced by it. They should be cauterized with lunar caustic or the hot iron.

CHAPTER V.

TUMORS.

I PROPOSE to consider under the head of tumors, all morbid growths or enlargements of the uterine system which do not depend on mispositions of the organs, and which do not generally evince a tendency to ulceration.

OOZING TUMOR.—This name has been given, by several authors, to a peculiar kind of tumor which sometimes grows upon one or both labia, from which exudes a copious watery fluid.

Diagnosis.—It is of a firm, lobulated texture, in color resembling the part to which it is attached. It is attended with considerable heat, a troublesome itching, and a profuse discharge of a serous fluid, unmixed with blood. The discharge is more profuse in damp weather.

Special Causes.—As it affects mainly females who are gross, fat, and debilitated, the causes can only be referred to bodily impurity and personal uncleanliness.

Treatment—A spare vegetable diet must be adopted. General bathing must be employed sufficiently to purify the whole body; frequent cool hip-baths and tepid

vaginal injections should be ordered, until all the local inflammation is subdued; and then the tumor can be easily and safely removed by excision.

Warty Tumors.—These excrescences—the *excroissances des grandes lèvses* of the French—appear singly or in clusters, suspended from some part of the vulva, or external genitals. They vary in size from that of a pea to tumors of one, two, or three inches in diameter. They are accompanied with little pain or tenderness, unless casually attacked with inflammation. Internally, they consist of small cysts, containing a serous or purulent fluid, and surrounded by condensed areolar tissue.

Fig. 18 is a representation of a large cluster of small warty tumors.

Treatment.—The general system and the local inflammation require the same management as the preceding affection. The tumors may be removed by excision or ligature. When removed by the knife, the part should be freely exposed to the air, for the purpose of arresting hemorrhage. If this does not succeed, caustic or the actual cautery may be necessary. Some cases have been cured by keeping the excrescences exposed as much as possible to the air, and keeping them dry by powdering them frequently with flour or chalk.

Enlarged Clitoris.—This is sometimes a congenital malformation, whence has arisen the suspicion of hermaphrodism; but most frequently it is the consequence of inflammation, leading to a hypertrophied condition, from deposition of adventitious matter. It is not, as

was formerly supposed, necessarily connected with self abuse or excessive sexual indulgence. In some cases the sexual desire may be increased by the irritation it occasions, but in other cases the sensibility of the organ is greatly diminished. In a majority of cases the morbid growth does not exceed two or three inches; but cases are on record where it increased to eight inches in length, and one case is mentioned where it enlarged into a pyriform tumor, and weighing from two to three pounds.

Treatment.—Due attention should be given to the health; and all local inflammation or irritation allayed by local baths, after which, if the tumor is so large as to occasion serious inconvenience, it may be removed by excision, ligation, or caustic. When very large, the ligature is the best, though its application will generally cause considerable pain. When the upper portion is pediculated, the knife will easily and safely remove it. Very little hemorrhage follows the operation, and this may be restrained in most cases by cold applications; cauterization is seldom necessary, but should be resorted to if the bleeding become alarming.

VASCULAR URETHRAL TUMORS.—Of the various excrescences which may form within or around the orifice of the urethra, the only one entitled to special distinction is the *vascular tumor* of authors. It is a small fungous excrescence, not often larger than a bean, of a red color, exceedingly painful, of a spongy texture, liable to bleed on being touched, and situated just within the meatus urinarius. In some cases, two or three small blood-red excrescences will be found.

FIG. 19.

VASCULAR URETHRAL TUMOR.

Diagnosis.—On separating the labia, a small projecting tumor or tumors, of a florid color, and an irregular jagged surface, may be seen in close proximity to the orifice of the urethra. There is also severe and constant pain at the vulva, often agonizing on motion, bearing-down sensations, scalding urination, with frequent desire to urinate.

Fig. 19 (from Bouvin and Düges) is a representation of this excrescence.

Treatment.—Removal by excision or ligature is the only reliable treatment; though, in their incipient stage, these tumors sometimes disappear on reducing the inflammatory state of the part by appropriate bathing and regimen.

Generally, excision is preferable, as, on turning the tumor a little to one side, its insertion into the lip of the meatus, or the tubercle above it, may be distinctly seen, and snipped off close to the mucous membrane, with a pair of scissors. The excision is not painful, and the hemorrhage is usually insignificant.

Polypus Tumors.—Under this head I shall comprehend those morbid productions which pathologists have designated as *fibrous* and *cellular* tumors, as well as those which all authors agree in regarding as polypi proper, however much they may differ in size, form, malignancy, or required treatment.

Description.—These tumors are of various degrees of density, from the consistence of the softest sponge to that of the hardest sole-leather; of all sizes, from that of a pea to a tumor of several pounds' weight, and occupy various situations; hence there is ample latitude

for pathological distinctions. Sometimes they grow from the fundus of the uterus, sometimes from the walls or inner surface of the cervix, and not unfrequently from the rim of the os uteri. In color some are white, others reddish, others red-dark, or dark-brown. Some are called *malignant*, because they run into corroding ulceration. Blue veins are more or less distinctly noticed on their surfaces.

Varieties.—For practical convenience these tumors may be distinguished into the following varieties: 1. *Glandular*, an enlargement of one or several of the glandulæ nabothi in the canal of the cervix, resembling sometimes a cluster of grapes or currants in size and shape, and of a soft consistence like glandular substance. 2. *Cellular*, occurring in clusters of two or three soft, rough, lobulated tumors, resembling nasal polypi very closely, and but slightly connected with the uterus. 3. *Fibrous*, which is firm and dense, although its firmness and density may vary in different tumors, and in different parts of the same tumor. This variety is always covered by the lining membrane of the uterus, rendering it to some extent sensible, and is frequently more or less imbedded in the muscular fibers of the uterus. When, however, the tumor enlarges to a certain extent, the uterine covering gives way, and is thenceforward confined to that part of it which is attached to the uterus. In some cases this variety grows from the mucous membrane.

What are called *fibrous tumors* by most of the French pathologists, are a subvariety of the fibrous polypi above described. They are distinguished into the *non-pediculated*—sometimes denominated *fleshy and fibrous*

tumors--and the *pediculated*. The former may be single, or composed of a congeries of smaller tumors agglomcrated into one large mass, and either imbedded into the uterine parieties, or originating immediately behind the mucous membrane. The latter grows from a narrow slip or pedicle of fibro-cellular tissues, which may be attached to any part of the mucous membrane.

Symptoms.—But little disturbance, calculated to excite suspicion, is experienced in the early stages of these tumors. Hemorrhages, very irregular as to time and quantity, are the most common and most formidable of the morbid phenomena. In some instances, the quantity of blood lost is enormous. Very frequently the bleedings are at first mistaken for excessive menstruation. The amount of hemorrhage does not, however, bear any determinate relation to the size of the tumor. Sometimes the blood is discharged in a fluid state; at other times it comes away in clots; and these clots, when long retained in the vagina, will be more or less putrid and offensive. In some instances, the clots will bear the form of the polypus, by which they have been molded. Menstruation in all cases is rendered uncertain in periodicity and variable in quantity. A leucorrhœal discharge alternates with the hemorrhages; and it may be serous, mucous, sanious, or sanguineous. Nausea and vomiting are frequent occurrences, and a train of dyspeptic symptoms supervenes, among which paipitation, emaciation, and œdema of the lower extremities are prominent.

The patient complains of pressure about the vulva, sense of weight in the pelvis, dragging sensations about the back and loins, weariness, aching in the back, and

sometimes irregular uterine contractions, which recur at longer or shorter intervals, until the polypus is detached and expelled. When the tumor is very large, the evacuations of the bladder and rectum may be impeded by its pressure. The existence of a small polypus does not necessarily prevent conception, though it may so seriously impede delivery as to require removal before labor is completed; and cases are recorded in which fatal flooding in labor resulted from polypus tumors depending from the fundus of the uterus.

"If our suspicions be excited" [by hemorrhages], says Churchill, "we shall discover, by vaginal examination, a rounded, smooth, and insensible tumor in the cavity of the pelvis, generally pear-shaped; the stalk may be traced up to or through the os uteri, if there be room in the pelvis to pass the finger." But when the polypus is so large as to completely fill the vagina, we can, of course, derive but unsatisfactory information in this way.

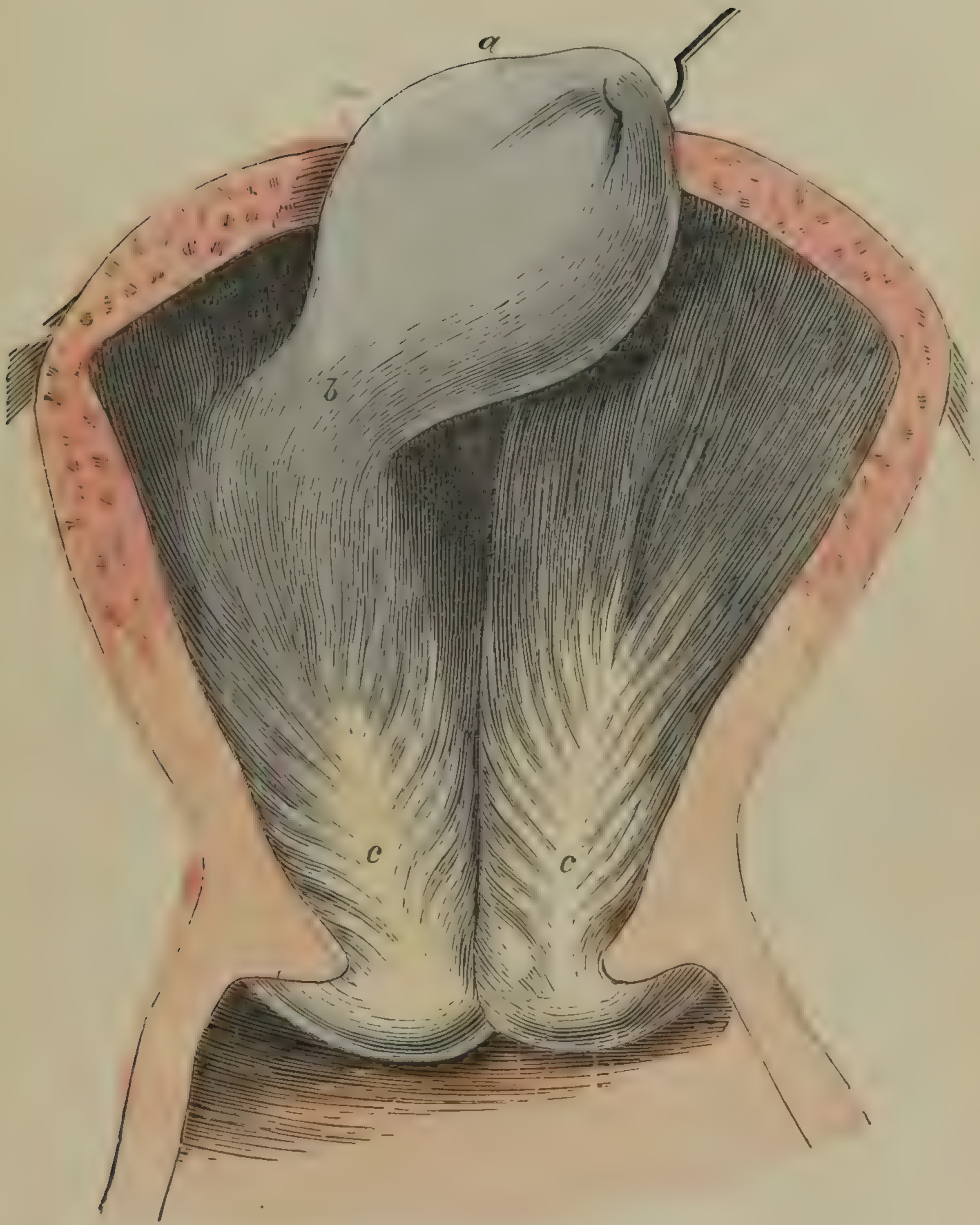
Diagnosis.—Polypus and fibrous tumors of the uterus are liable to be mistaken for pregnancy, mismenstruation, vaginal hernia, vaginal cystocele, scirrhus, cancer, cauliflower excrescence, prolapse of the womb, inversion of the womb, chronic enlargement or induration of the womb, or ovarian disease. These cases, therefore, need to be studied with the greatest care.

From *pregnancy* they may be distinguished by the absence of the usual signs, by the gradual progress of the abnormal symptoms, and by the irregular hemorrhages.

From *mismenstruation*, by hemorrhages occurring irregularly, and at other times than the proper menstrual periods.

From *vaginal hernia*, by the perfect sensibility and

FIG. 20.



FIBRO-CELLULAR POLYPUS.

elastic feel of hernial protrusions, and by the peculiar crepitus of hernial tumors. Hernial tumors are also usually reducible in bulk by compression.

From *vaginal cystocele*, by the pain or difficulty in voiding the urine when the bladder protrudes into the vagina; also, by the tortuous direction of the urethra, and the different sizes of the tumor during the comparative fullness or emptiness of the bladder. In this case, too (as in the preceding), the tumor is covered by a production of the mucous membrane of the vagina, which is not the case in polypus. The presence of the mucous membrane may be determined by its folds or rugæ, and by its sensibility.

From *scirrhus* and *cancer*, it may usually be known by the severe pain which attends the early stages of can croid growths, *previous* to the commencement of ulceration.

From *cauliflower excrescence*, by not bleeding when touched, and by its greater smoothness and density.

From *prolapsus uteri*, by the os uteri being found at the lower part of the tumor, and the equal and general sensibility of the tumor, in the case of prolapsed womb. Hemorrhages do not occur from prolapsus.

From *inversion of the womb*, by the gradual progress of polypi, whereas inversion occurs suddenly, and is attended immediately with hemorrhage, faintness, collapse, etc. In some cases, the uterus is gradually invested by a polypous tumor depending from its fundus, in which case the *absence of the uterine tumor* from the lower part of the abdomen will be a diagnostic symptom. The surface of the inverted uterus is rough, while that of a polypus is smooth.

From *chronic enlargement, or induration of the uterus*, by the diffused swelling and tenderness when the substance of the womb is thus diseased, whereas polypus tumors are well defined, and nearly insensible.

From *ovarian disease*, by an examination both externally and internally. In an enlargement of the ovary, no depression is felt by the finger in the vagina on pressure of the abdominal tumor.

Special Causes.—In relation to fibrous tumors of the uterus, Dr. Churchill remarks: "The causes are extremely obscure, and probably are to be found in the temperament of the patient, her age, and the anatomical peculiarities of the uterus." I can not conceive that the first and third causes named by Churchill should have, or do have, any thing to do in the production of such diseases; nor, indeed, the second one, except so far as age may be connected with mismenstruation, and morbid conditions attending pregnancy and the "turn of life." These tumors are almost, if not quite, as common to unmarried as married females; and with those who have never borne children as those who have. Probably the immediate cause, in the great majority of cases, is an unexpelled clot of blood, formed during abortion or mismenstruation, becoming organized and attached to some part of the mucous surface. This supposition is corroborated by the fact, that these tumors are most common at middle age, the period of life when abortions and menstrual irregularities are most liable to occur.

Fig. 20 represents a fibro-cellular tumor attached to the body of the uterus, as seen on a section of the organ, the tumor being elevated by a hook so as to exhibit its pediculated adhesion.

FIG. 21.

EXTERNAL PELLICULATED TUMOR.

FIG. 22.

INTERNAL PELLICULATED TUMOR.

In Fig. 21 is seen the same character of tumor, projecting externally, the long slender pedicle of which may be attached to the mucous surface of the vagina, or within the os uteri.

Fig. 22 is a representation of a white polypus tumor in the cavity of the uterus, attached by a pedicle to the upper part of the fundus.

Fig. 23 is an example of a polypus tumor of enormous dimensions, removed by ligature from its attachment to a large surface of the uterus.

Fig. 24 shows the appearance of the uterus immediately after the removal of the tumor.

Treatment.—Excepting due attention to the general health—a rule which holds good in all "the ills which flesh is heir to"—the treatment is, of course, entirely surgical. When uterine tumors are so situated, or increase to such an extent, that by mechanical pressure they interfere with the action of the bladder and rectum, the urine may have to be drawn off with the catheter, and the bowels moved by means of tepid or cool injections. It is sometimes necessary, on account of the changed position of the urethra, to employ the gum elastic male catheter, and it is frequently advantageous to have the stilette very much curved at the end.

When hemorrhages are frequent, or a troublesome leucorrhœa attends, the occasional employment of moderately cool vaginal injections is useful; for which purpose the new "pocket injecting instrument," invented by Dr. Mattson, and sold by Fowlers and Wells of this city, is the most convenient instrument with which I am acquainted. Indeed, this instrument answers all the purposes of a vaginal and rectal syringe, either for adults

or infants; and possesses one advantage over all other pump syringes, that of being worked with but one hand.

In some few cases the tumors under consideration have been absorbed, or have in some way disappeared spontaneously. But their tendency is to increase in bulk, until their presence is so distressing to the patient, or so injurious to the pelvic organs or functions, as to render surgical interference indispensable.

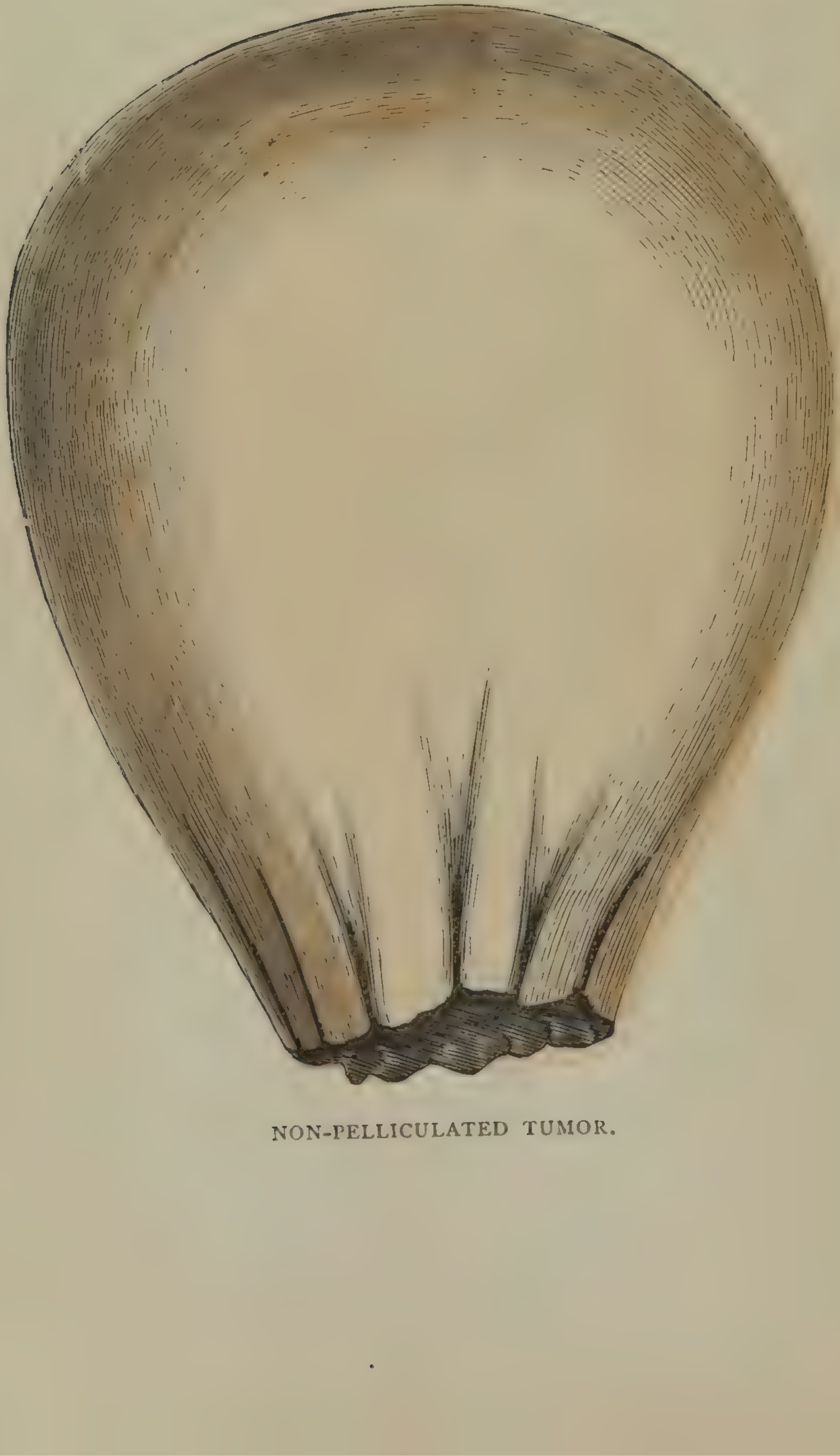
And here we may choose between torsion, the ligature, excision, and caustic, or between this last and the actual cautery. There are few cases, however, in which the ligature is not the preferable means of removal, and in a majority it is the only practicable method.

There will be no difficulty in ligating those tumors which arise from a narrow pedicle from the rim of, or within, the os uteri. We may not always be able to apply the ligature very close to their starting-point; but if cut off by the ligature as near it as can be reached without difficulty, they are not, as far as my observation extends, liable to grow again. This non-liability, however, I impute to a rigid hygiene which counteracts all inflammatory tendency in the uterine system.

While the tumors are situated wholly within either of the uterine cavities, we can do nothing except palliate the symptoms. But as the tumors enlarge, they will of necessity dilate the os uteri, and sooner or later protrude into the vagina, or even beyond the os externum.

Removal by *torsion* is only applicable to the softer or cellular variety. The tumor is to be seized with forceps, or with the finger and thumb, and twisted round gently until the stalk or pedicle breaks. There is no danger

FIG. 23.



NON-PELLICULATED TUMOR.

FIG. 24.

UTERUS AFTER REMOVAL OF THE TUMOR.

of hemorrhage from this operation. In some cases tumors of an enormous size are attached by a very slender stalk, which is easily twisted off.

Ligation is always safer than excision in the common or complex varieties of polypi, but in some cases its application is attended with many difficulties. Its principle is, to destroy the vitality of the part; and by gradually tightening it around the vessels, the circulation is eventually cut off. The tumor generally drops off in a few days after the ligature is applied.

Silver wire, waxed silk, catgut, wire-covered silk, and whip-cord have been used for ligatures. The latter article possesses the advantage of increasing in thickness and diminishing in length on being moistened, thus tightening itself after its application; and silver has also one peculiar recommendation in certain cases, for it can be applied over the largest polypus by the fingers alone.

The canula in common use for ligating polypous tumors is represented in Fig. 25. It consists of two tubes connected laterally, through which the ligature is passed, and rings on each side, at the lower end, where one end of the ligature is fastened. The loop at the upper end is then passed over the tumor to its pedicle, when the ligature is drawn sufficiently tight, and fastened to the other ring. The ligature may be tightened occasionally, and the canula should remain until the strangulated tumor sloughs off.

In cases where, from the size or peculiar shape of the tumor, or from rigidity or inflammation of the mouth of the womb, the ligature is impracticable, we have still a chance of disorganizing and removing it in pre-

cisely the same way as recommended for cancer. Polypi are more readily disorganized than cancerous growths, hence milder caustics are generally sufficient.

Excision is not impracticable in many cases, and has frequently been employed successfully; but as there is danger of a fatal hemorrhage following the operation, I can not advise it in any case. In rare cases, when the ligature has been applied for a long time without destroying the stalk of the tumor, it may be excised immediately below the ligature with perfect safety.

But in selecting our plan of cure, it should ever be borne in mind that we can not be too careful in the diagnosis. Churchill tells us that "experienced practitioners" have mistaken an inverted uterus, a recto-vaginal hermia, and an aborted ovum retained in the neck of the uterus for a polypus, and "operated" accordingly.

Moles and Hydatids.—A variety of shapeless masses or tumors found in, or issuing from, the uterus, have been indiscriminately called *moles*, or *false conceptions*; but Churchill, with the recent French pathologists, has restricted the term to degenerations of structure, resulting from mal-development of impregnated ova—in other words, *degenerated conceptions*.

Varieties.—Blighted or *false conception*, the *fleshy mole*, and the *vesicular mole*, or *hydatids*, are all the varieties necessary to distinguish. The former term applies to those cases wherein the fragments of a fœtal growth, which has lost its vitality, and become nearly or entirely dissolved in the liquor amnii are discernible, in the remains of the umbilical cord, placenta, membranes, etc. The fleshy mole is a mere modification

FIG. 25.

DOUBLE CANULA, WITH LIGATURE.

FIG. 26.

VESICULAR MOLE, OR HYDATID.

of the first variety, having become more dense in texture, irregular in shape, and covered with depositions or coagula which have become organized; they may appear in the form of solid masses, or of masses having a central cavity filled with fluid.

The third variety commence in small numbers on the outside of the ovum, upon which they gradually encroach, until its form is entirely obliterated. They grow, also, from parts of the placenta.

These hydatids resemble pins' heads, peas or beans, or grapes, in size and shape, clustering together, and all being attached to a central and more solid part, as represented in Fig. 26.

They possess, individually, coats, resembling very closely the serous, fibrous, and mucous structures, and contain a transparent, yellowish, or pink-colored fluid. They are often discharged from the uterus in distinct fragmentary portions, the remaining part keeping up, for a long time, the hemorrhage which accompanies their expulsion.

Symptoms.—All the symptoms at first exactly resemble, and in fact are, those of pregnancy. But when the period of "quickening" arrives, there are no fœtal movements, yet there is generally more or less of a serous or sanguineous discharge from the vagina. The patient does not usually suffer much at this time in general health.

At length, at an uncertain period, the uterus makes an effort to expel its contents, when all the phenomena of abortion or premature labor occur. On examination *per vaginam*, a soft mass will be felt, instead of the head or other portion of a proper fœtus. It is impos-

sible to distinguish a *fleshy* mole from an early abortion, without close inspection. In some cases it is adherent to the uterus, when the hemorrhage may be alarming, and will continue until the whole mass is expelled.

Diagnosis.—These tumors are never generated except during the menstrual term of life. They are liable, however, to be mistaken for *normal pregnancy*, physometra, and hydrometra. From *pregnancy* they may be distinguished by the occasional discharges or hemorrhages, the absence of fœtal movements, and in some cases by the continuance of the abdominal swelling beyond the natural duration of pregnancy.

From *physometra* they may be known by the greater weight of the abdomen, and the absence of resonance; and from *hydrometra* by the accumulation being greater, the fluctuation more marked in the latter malady.

Treatment.—We have nothing to do in the way of medication, save attention to the general health, until the expulsive effort commences, and then the management is very much the same as in a case of abortion. If the flooding be excessive, we may apply cold wet cloths to the vulva, or plug the vagina. If the ordinary means fail to arrest the hemorrhage, and the uterine distention be equal to that of pregnancy at seven months, it will be advisable to introduce the hand and remove the mass, as in the case of adherent placenta. But we must be careful of manual interference, however, unless such degree of distention exists as would be more dangerous than the bleeding itself.

PHYSOMETRA.—This name is given to an accumulation of gaseous fluid in the uterus—*uterine tympanitis.* It

occurs much more frequently in women soon after delivery, and has been imputed to decomposition of fragments of retained placenta, a morbid secretion from the mucous surface, putrefaction of clots of blood, or of the lochia, etc. Sometimes the os uteri is closed; but at other times the air is expelled with a greater or less noise several times a day.

Diagnosis.—The earlier symptoms, as in the case of a mole, resemble pregnancy. Menstruation ceases, the abdomen enlarges; and if the disease continues, milk is eventually secreted by the breasts. But the resonance of the tumor and the absence of fœtal motion will distinguish it. In most cases, sudden motions, bending forward, straining at stool, coughing or sneezing, occasion loud explosions; and these may be so troublesome as to render the patient "hors de société."

Treatment.—In some cases tepid hip-baths, and the warm-and-cold vaginal injections, or douches, will effect a cure. These douches may be administered in various ways. An India-rubber bag, holding two or three gallons, suspended on a hook, and communicating by an elastic tube with a vaginal tube, answers every purpose. Should this treatment fail, we may succeed by the introduction of a canula through the os uteri and cervical canal into the cavity of the uterus. The air will then escape; but as it will soon collect again, the morbid condition must be corrected by the injection of water daily, blood-warm at first, and gradually reducing its temperature to 70° or less, if it can be borne without discomfort. Much benefit may also be derived from moderate cool douches to the loins and abdomen, and kneading or otherwise manipulating the external abdominal

muscles; not, however, with force enough to create much pain.

Hydrometra.—This disease—the *uterine dropsy* of authors—consists in an excessive secretion and accumulation of fluid in the uterus, its retention being occasioned by the closure of the os uteri or the obliteration of the cervical canal. It is said sometimes to assume a periodic character. The accumulated fluid may be serous, mucous, albuminous, or puriform; and its quantity may vary from one to two pints to more than a hundred pounds! In many cases it is discharged after accumulating to a certain extent, but soon accumulates again. Some authors consider the disease to be encysted, a single hydatid filling the cavity of the uterus.

Diagnosis.—The distention of the abdomen comes on very gradually; the menses cease; the urine is scanty; the breasts enlarge and feel knotty and glandular; and when the accumulation is considerable, the tongue becomes furred, the skin dry and hot, the pulse small and frequent, and the bowels irregular. On a vaginal examination, the tumor felt by the finger can easily be identified with that of the abdomen; there will also be recognized by the touch a diminution of the uterine cervix, while all evidence of any solid body in the uterus is absent.

Treatment.—There is little danger of any serious consequences if the os uteri remain open, so as to permit the periodical escape of the fluid. But in cases of its complete occlusion, the accumulation may go on till rupture takes place, and death results. Our business, then, is to evacuate the contents of the uterus in some

way. The canula should be introduced to draw off the fluid, when practicable; and if the os uteri, or cervical cavity, is impervious, puncturing it with a trochar seems to be our best resource. Cases have recovered where the uterus was punctured above the pubis, but this must certainly be a more dangerous operation.

Ovarian Tumors.—The ovaries are liable to fibrous, cancerous, and fungous tumors, to encysted dropsy, and to enlargement and induration from chronic inflammation, all of which affections have been quite promiscuously spoken of in common parlance as "ovarian disease."

Varieties.—It will answer our purpose to distinguish four varieties of ovarian tumors: *fibrous*—the non-malignant tumor of authors; *cancerous*—the malignant disease, scirrhus, and fungous hematodes, or encephaloid of authors; and *ovarian dropsy*—the encysted dropsy of the ovary of Denman, Burns, Davis, Blundell, and others.

Symptoms.—Fibrous tumors in the ovary resemble in structure those found in the uterus. In size they may vary from a few ounces to thirty or forty pounds. It does not greatly affect the patient's health until it has so increased in bulk as to disturb the functions of the bladder and rectum mechanically. Œdema of the lower extremities, and numbness or neuralgic pains in one thigh and leg, may be occasioned by pressure on the vessels and nerves.

Cancerous or malignant disease is probably more frequent than cancer of the breast. In the early stage the tumor is hard, uneven, scirrhus-like; but as the

disease advances some portions of it soften into brain-like matter, while other portions remain fibrous, or become cartilaginous or calcareous. Occasionally the morbid growth exhibits various modifications of structure, which have been called *cephaloma*, *hematoma*, *tuberculose*, etc. If adhesions take place to the surrounding parts, the tumor will remain in the cavity of the pelvis, occasioning much greater suffering; otherwise it will rise into the abdominal cavity. Menstruation is not suppressed unless both organs are involved. As the disease advances, the constitutional powers wear away, the surface becomes bloodless, and hectic fever sets in, with small, frequent pulse, extreme debility, and rapid emaciation.

While the enlarged ovary remains in the pelvic cavity, it can be detected by a vaginal examination; and afterward its nature is readily ascertained by abdominal manipulation. Generally in this case the tumor will be felt above the brim of the pelvis, in one of the iliac fossæ, as large as a fœtal head. Its surface feels knotty or tuberose, and its consistency hard and unyielding.

Encysted dropsy is a collection of fluid in one or more cysts or sacs. The fluid may be thin or viscid, yellow or dark, clear or muddy, or any of these mixed with pus, coagulated blood, membranes, bony matters, hair, etc. In the early stages of the disease the patient feels merely a weight and fullness in the pelvis. Symptoms of pregnancy soon become so prominent, that most females imagine themselves in the family way. But as the tumor enlarges, the functions of the bladder and rectum are very seriously incommoded. A vaginal examination will find a tumor between the vagina and

rectum, where, if the parieties be thin enough, fluctuation may be recognized. The tumor itself will be insensible to pressure, and the os uteri may be found in its natural position, or pushed laterally, elevated or depressed, according to the situation and size of the tumor. On introducing the finger into the rectum, and beyond the tumor, the fundus uteri can be distinguished from the enlarged ovary, thus correcting any suspicion we may have of retroverted womb.

After the tumor extends upward into the abdominal cavity, we can detect it lying in one of the iliac fossæ, above the brim of the pelvis, and as it enlarges it continues to lean to one side of the abdomen. A vaginal examination then detects the os uteri higher than natural, but pressure on it communicates no sensation or shock to the other hand placed on the abdomen.

The constitutional symptoms are well described by Burns: "In the course of the disease the patient may have attacks of pain in the belly, with fever, indicating inflammation of part of the tumor, which may terminate in suppuration and produce hectic fever; or the attack may be more acute, causing vomiting, tenderness of the belly, and high fever, proving fatal in a short time; or there may be severe pain, lasting for a shorter period, with or without temporary exhaustion; and these paroxysms may be frequently repeated. But in many cases these acute symptoms are absent, and little distress is felt until the tumor acquires a size so great as to obstruct respiration, and cause a painful sense of distention. By this time the constitution becomes broken, and dropsical effusions are induced. Then, the

abdominal coverings are sometimes so tender that they can not bear pressure; and the emaciated patient, worn out with restless nights, feverishness and want of appetite, pain and dyspepsia, expires."

Examples are on record of females who carried those tumors about, with comparatively little suffering, for twenty, thirty, and, in one case, fifty-eight years.

Treatment.—With regard to *fibrous non-malignant tumors* of the ovary, we can only retard or resist their growth by attention to the general health, taking especial pains to subdue all local irritation by local, sedative baths—injections, hip-baths, and the wet girdle—while the bowels are at all times kept free by a simple, unconcentrated fruit and farinaceous diet. When the mechanical pressure in the pelvis is severe, catheterism may be necessary; and in some cases, the tumor may be pushed up beyond the brim of the pelvis, and afford complete relief for the time.

In the cases of *cancerous* or *malignant tumors*, the same rules apply in relation to elevating the diseased mass into the abdominal cavity, when practicable, and keeping down inflammation. It is admitted by the best writers, that "active medicines are exceedingly injurious," while all of us can understand that *passive* medicines have no curative power. These tumors have sometimes obtained the enormous weight of fifty, and, in one case, of seventy-five pounds, before death resulted. Excision has been proposed, and in several cases performed, but not with results justifying its repetition.

When encysted dropsy exists, relief may often be given, as in the preceding cases, by pushing the tumor above the brim of the pelvis. The whole round of

diuretics, diaphoretics, purgatives, mercurial frictions, iodine ointments, hydriodate of potash solutions, etc., have been tried in vain in *regular* practice. Gentle percussions, combined with compression of the tumor, are reported as having succeeded in effecting a cure; and they may be harmlessly employed. When the tumor becomes so large as to seriously impede respiration, puncturing with a trocar, and draining off a portion of the fluid, may give temporary relief; but the sac refills rapidly. In some cases the tumor disappears, probably from bursting of the cysts, but the fluid soon accumulates again.

In several cases the ovary has been extirpated, and the patients recovered. Churchill has collected the statistics of sixty-six cases operated upon, of which forty-two recovered.

CHAPTER VI.

CAUTERIZATION.

In treating of the various diseases in which cauterization is one of the leading remedial processes, it is impossible, without continual repetitions, to go into all of the details which should regulate its application; hence I will devote a chapter to the general consideration of this subject.

Modus Operandi of Caustics.—The object of all caustic applications is to disorganize or destroy a morbid surface or structure, so that the vessels beneath can build up the healthy tissue again, analogous to what happens after burns, and scalds, and cuts, and wounds from mechanical injuries. I am aware that the explanation generally presented in medical works is very different. It is ordinarily said to so "stimulate the vessels as to bring on a healthy action," and the more morbid is the existent action the greater must be the stimulus of caustic; in other words, the *stronger* must be the chemical incompatibility of the disorganizing agent.

Now I regard the simple truth to be this. The healthy tissues or vessels—the vital powers—never want stimulating or irritating in any manner, by any extraneous

process or agent. But if a blow, a bruise, a clot of blood, a floating impurity, a morbid humor, have disorganized a portion of the living organism, or formed a nucleus to which the organic atoms may be accreted or transformed by a new series of affinities, then it becomes necessary to destroy the morbid growth or nucleus, and break up the abnormal attractions, even though we destroy some portion of sound structure in so doing.

And herein is the therapeutical value of caustics, of destructive chemical agents, of anti-vital corrosives; not to *medicate* the living principle, but to *destroy* the abnormal material.

Some caustics, as sanguinaria, are generally denominated *irritants;* and others, as a weak solution of nitrate of silver, *astringents;* while the crystalline lunar caustic, aqua fortis, potassa fusa, etc., are called *corrosives*, or *escharotics.* The explanation is, the former, or mild caustics, only act very superficially; they do not disorganize to any appreciable extent or depth; while the latter class, or strong caustics, do destroy the structures to the extent of making appreciable sores, eschars, or cavities.

Quality of different Caustics.—In selecting a caustic for a given case we should select one of a strength proportioned to the extent to which it is necessary to corrode or destroy an unhealthy surface or morbid growth. We should also reject those (other circumstances being equal) which are most liable to be absorbed, and thereby poison the whole system—as the various preparations—powders, ointments, and pastes, of arsenic and mercury. Some articles, as the hydrate

of potash, destroy the parts with which they come in contact so rapidly and completely, as to prevent all danger of absorption to any injurious extent. In this respect the application of strong potash is not very different from that of the red-hot iron, which has lately become a favorite method of cauterization in uterine diseases in some of the French hospitals.

Dr. Bennett, in his work on uterine diseases correctly observes: "The most generally employed, and at the same time the least energetic caustic, is the nitrate of silver." For this reason it may be employed with great freedom in superficial ulcerations, or when morbid growths exist superficially on the mucous surface of the vagina or uterine cavities. "When freely applied," says Bennett, "in substance to the granulations which cover the ulcerated surface, it forms a white film or eschar, the thickness of which, when it falls off, is seldom greater than that of a piece of drawing-paper. This eschar is thrown off either entire or piecemeal about the third or fourth day. On the latter day the surface to which the solid nitrate of silver has been applied is generally found red, irritable, and bleeding." These phenomena, in my judgment, indicate the vital action, which, so far from "responding to the stimulus" of the caustic, is energetically resisting its influence, and casting off the dead and disorganized matter.

When a piece of solid nitrate of silver is left to dissolve on a mucous surface, its effect does not extend much in depth, but merely spreads superficially.

Of the caustics, of which potassa constitutes the base, we have the common *carbonates of potassa*—saleratus and pearlash, and the hydrate of potash—potassa fusa.

The sesqui-carbonate of potassa is a more pure alkali, intermediate between the proto or mono-carbonate and the bi-carbonate. Its purity is known by its dissolving in water without a sediment, unlike the common saleratus and pearlash of the shops.

The strength of these preparations is in the following order: saleratus, sesqui-carbonate, pearlash, potassa fusa. With this understanding we can always have a *powdered* alkaline caustic of the desired strength; and if we use them in *solution* we can modify its causticity to any extent we please.

Potassa fusa is one of the strongest caustics known. It destroys in a few seconds the tissue with which it is brought in contact, and by prolonging the application, the disorganization may be carried to any extent or depth.

It is, however, so fusible, and hence so liable to run on the adjoining or sound structures, that in many cases it has to be combined with quicklime, which prevents its deliquescence, although it will impair, to some extent, its causticity. This compound—the *potassa cum calce*—can be applied to any desired spot to which it is desirable to limit its operation. It may be obtained in cylinders, composed of two parts potassa to one of lime, and employed in the same manner as the pencils of nitrate of silver.

The sulphate of zinc, as already intimated, acts promptly and effectually in disorganizing all structures not protected by the skin or mucous membrane. It can only be employed, therefore, when the indication is to destroy deeply, and in all directions.

Between the mineral acids—nitric, hydro-chloric, and sulphuric—there is probably not much to choose. They

are more energetic than lunar caustic; but much more superficial in their effect than potassa fusa. But as they act on both morbid and healthy tissues alike, they are only applicable to cases when their action can be circumscribed to the part affected. Nitric acid has been employed in ulcerations of the os and cervix uteri; but as other caustics are equally efficacious, and much more convenient, I would not recommend it in any such cases. The actual cautery, as the hot iron is termed, is now employed freely in the treatment of ulcerations and indurations of the neck of the uterus. So far as decomposing the diseased part is concerned, it has all the advantages of potassa and lime, with, perhaps, the additional one of extending its disorganizing influence a little beyond the point of actual contact, and of not affording any injurious ingredient to be absorbed. The cauterizing rod or instrument must be brought to a white heat, to prevent adhesion to the tissues on being withdrawn. Some of the Paris surgeons are very much opposed to the actual cautery in these cases; but I can see no reason, nor have I been able to find any reliable testimony, so far as results are concerned, tending to disprove its equal efficacy and safety with potassa or any other strong caustic. There is, indeed, a something liable to strike terror into the minds of the unreflecting in the smoke, odor, and the hissing of burning flesh attending the application of hot iron to the os uteri; but aside from these circumstances the operation has nothing formidable nor alarming attending it. The pain is not severe, nor is the subsequent inflammation more dangerous than after the employment of other caustics, provided always a due regard be had to hygienic medication.

Methods of Cauterizing.—Little need be said here, for the ingenious practitioner who thoroughly understands the principles which should regulate the selection and application of caustics, will find no difficulty in adapting them to the circumstances of each individual case. I am most thoroughly convinced that many, very many weakly and sickly females are subjected to mechanical and surgical, and especially cauterizing treatment, quite unnecessarily; and whose diseases, being mere debility and inflammation, can readily be cured by the ordinary appliances of water-cure; and also that thousands of females who "suffer many things of many physicians," in the way of "special medication," fail to recover health, simply because they do not adopt a sufficiently strict and physiological regimen. But I am equally certain that there are cases, and many cases too, where such structural changes have taken place, that, however much we may relieve for a time, we can not effect a cure without the measures here recommended to destroy morbid growths—without cauterization.

I can not refrain from remarking in this place that, if "drug-doctors" who have no other ideas of treating uterine disease save such as revolve round the circle of caustics, issues, leeches, scarifications, and anti-phlogistics, would prescribe any thing like a rational plan of attending to the general health, they would not have occasion to employ caustic more than once where it now seems to them necessary to employ it ten times.

I would also take this occasion to say to those physicians of the water-cure school, who with myself are classed among the "ultra-hydropaths," that in recommending caustics in certain cases of morbid changes of structure,

I distinctly repudiate all connection between such practice and drug-medication. There is no more analogy between the application of a knife, a ligature, a hot iron, or even a caustic, to an abnormal substance, and the internal administration of a drug remedy, than there is between the application of a splint to a broken bone and the swallowing of a dose of "gin schnapps." One is mechanical and surgical; the other is "medicinal" and poisonous.

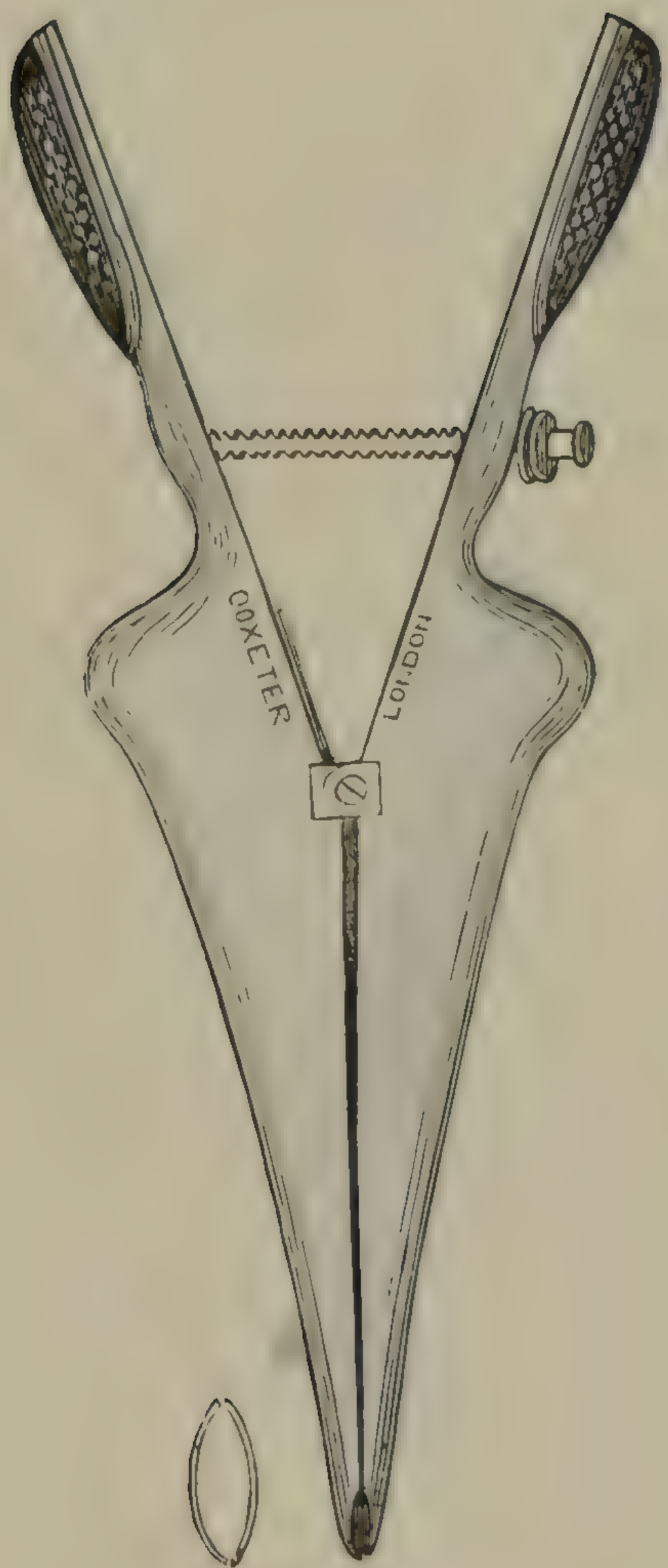
The speculum is an instrument very frequently necessary, not only in facilitating the application of caustic exactly to the proper spot, but also in enabling us to determine with requisite accuracy the character of the disease we are endeavoring to medicate.

Vulvular specula are made bivalvular, trivalvular, and quadrivalvular. But the bivalve speculum (Fig. 27) is altogether the best for general use. Two, three, or four sizes are necessary for examining all the cases which present.

By the expansion of the blades of this form of speculum, the cervix is more fully exposed to view, while their blades, being almost in juxtaposition when closed, are easily passed along a narrow vagina. When the blades are opened, however, if the vagina be very lax, it is apt to get between the blades, and so prevent a proper inspection of the cervix. In these cases, therefore, the conical speculum is preferable.

The conical speculum (Fig. 28) is also said to be useful in facilitating the introduction of leeches to the cervix; but I hope the time is not far distant when this barbarous and worse than useless practice will be dispensed with entirely.

FIG. 27.



BIVALVE SPECULUM.

FIG. 28.

CONICAL SPECULUM.

FIG. 29.

FINESTRATED SPECULUM.

For the purpose of examining the sides of the vagina, the fenestrated speculum (Fig. 29) is a very convenient instrument. It is a metallic tube, large enough to duly distend the vagina, with the inner end rounded and closed to facilitate its introduction, and a fenestrum extending nearly its whole length; by turning it round, all parts of the vaginal surface can be readily seen and examined. The practitioner should have three or four sizes.

A combination of the bivalvular and conical is seen in Fig. 30. When closed, it is slightly flattened transversely; the cone is composed of two valves, which can be separated to any extent by means of a hinge. It is a good substitute for the larger conical specula, and answers to protect the vaginal passage in the application of strong caustics.

Glass specula have been made in various countries, but from their liability to break I would be unwilling to use them. The inner surface of every speculum should be highly polished, so as to reflect the greatest possible amount of light.

The speculum of M. Ricord (Fig. 31) is very convenient for general purposes, and of very simple construction. It consists of either two or four semi-cylindrical blades, joined at a short distance from the outer extremity. When closed they form a cone, but after the instrument is introduced, the inner extremities may be widely separated by approximating the handles.

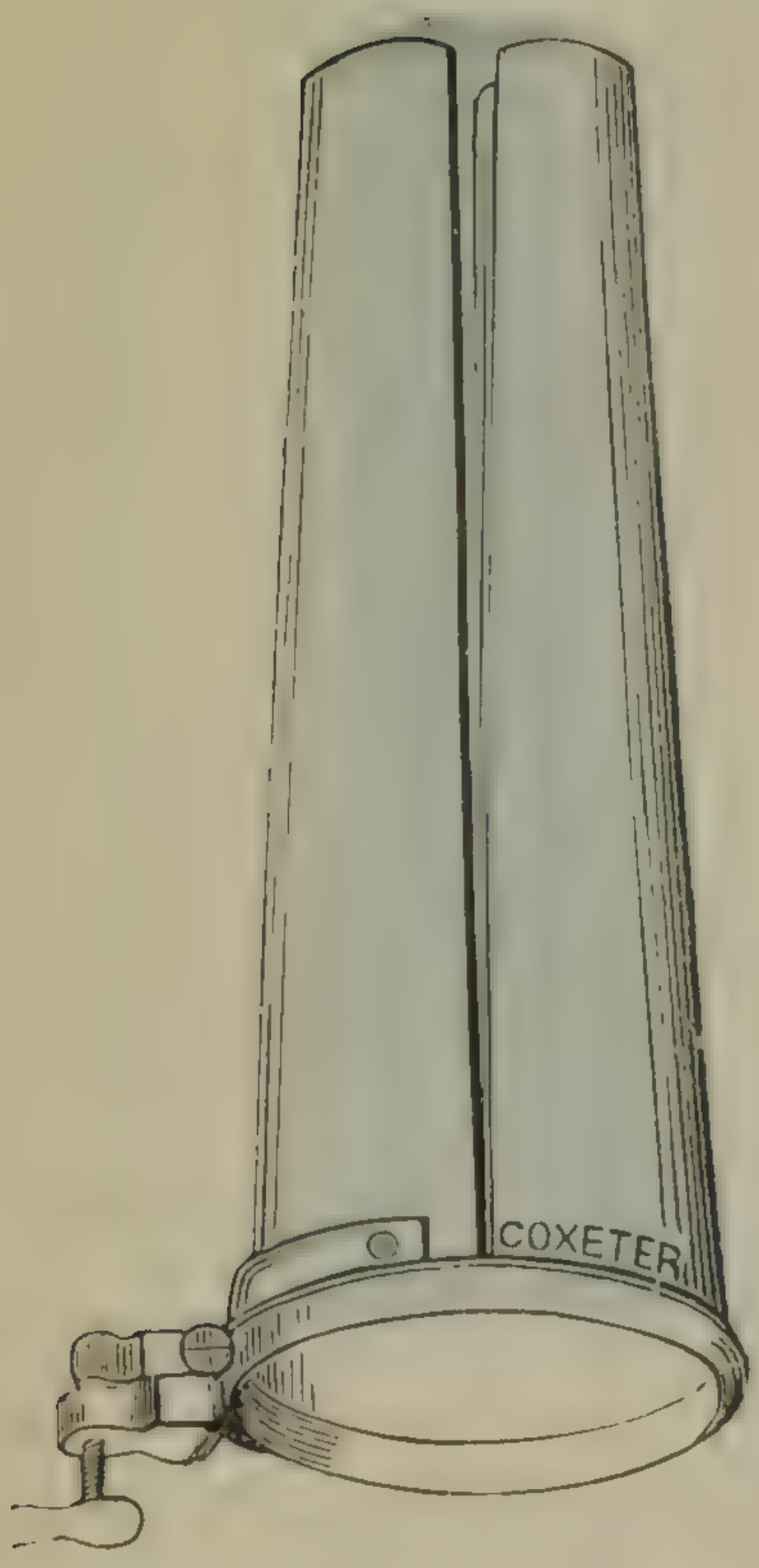
The best position for the patient in a specular examination is on her back, opposite a lamp or window. It may be necessary to use lint and the dressing forceps to remove mucus or blood, which may cover the parts to

be examined. Churchill says—"The mode of using the speculum is as follows: the patient may be placed on her hands and knees; or on her side or back, with the hips down to the edge of the bed; and the labia being carefully separated, the point of the instrument, well oiled, is to be introduced into the orifice of the vagina, pressing toward the perineum, and directed backward and upward. When it has penetrated four or five inches into the vagina, the blades may be separated, the obturator (if there be one) withdrawn, and a light brought to the outer end of the instrument. The parts at the inner end will then be distinctly visible, and their condition can be ascertained. If the cervix be not exactly at the inner end of the speculum, it must be withdrawn a little, and passed up again in a somewhat different direction, until the object is attained. When the examination is ended, care must be taken not to injure the vagina by the too sudden withdrawal of the instrument when widely expanded. We must also take care not to include hair or mucous membrane in the joints of the instrument."

The uterine sound (Fig. 32) is, in some cases, a valuable assistant in enabling us to diagnosticate diseases of the uterus. It is merely a graduated bougie with a handle. The inches and half inches are figured on the instrument, and two inches and a half from its extremity a small protuberance denotes the depths of the cavities of the cervix and body of the uterus in the healthy state.

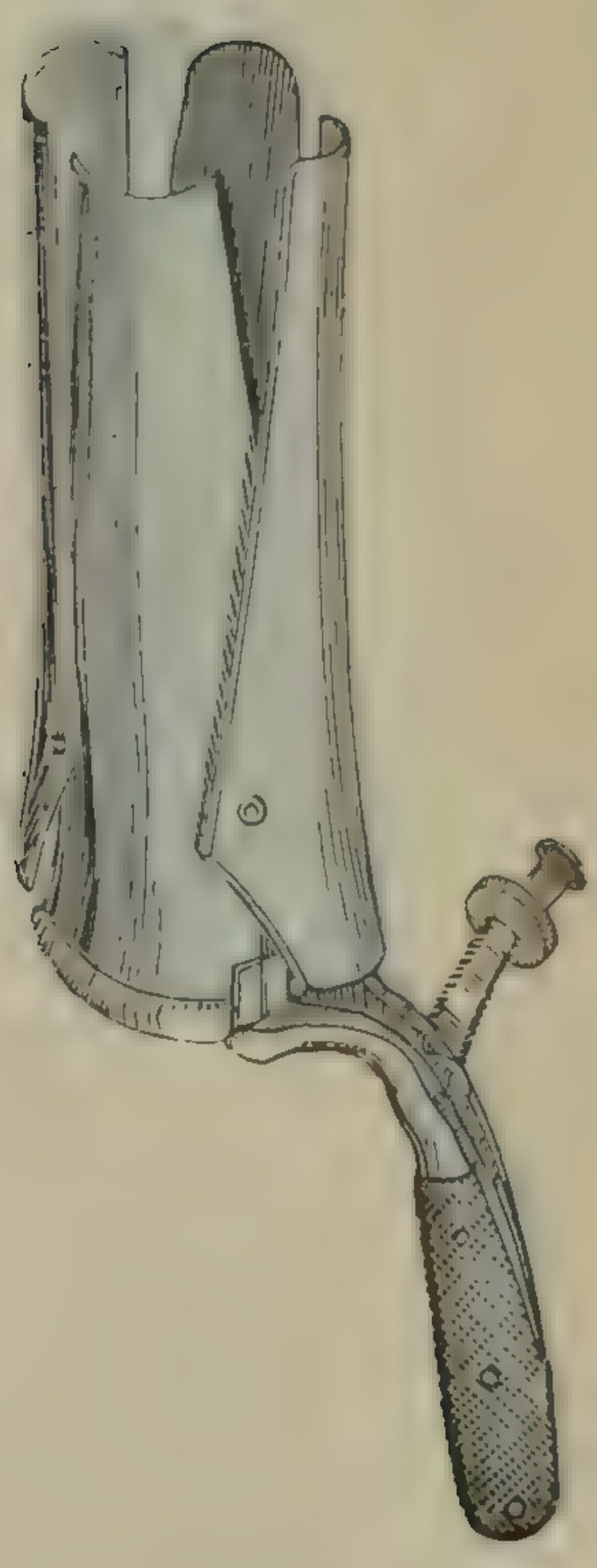
"In examining a patient with the sound," says Bennett, "in order to ascertain whether it passes freely through the cervical cavity, and enters the uterus, it is very necessary to be certain that it really does penetrate as far as this protuberance. The fact of the operator

FIG. 30.



COMBINATION SPECULUM.

FIG. 31.



RICORD'S SPECULUM.

FIG. 32.

UTERINE SOUND.

being able to replace the womb, or to turn it upward, by no means proves that such is the case, the purchase obtained on the uterus when it only enters as far as the os internum—that is, one inch and a half, or one inch and three-quarters—being quite sufficient to enable the practitioner to accomplish this. In order, therefore, to be quite certain, he should carefully ascertain, by the touch or the eye, that the sound has really entered above two inches.

"The sound should not be introduced into the cavity of the uterus, in my opinion, except as a necessary means of diagnosis. Its contact with the lining membrane of the uterine cavity is frequently attended with pain, and often with nausea, faintness, and a slight loss of blood. This leads me to conclude that the internal stem of Dr. Simpson's permanent pessary does not, generally speaking, reach the uterine cavity, but merely remains in contact with the mucous membrane of the cervical cavity, which is infinitely less sensitive.

"The uterine sound is also useful in bringing the cervix fully into view, when only partially within the field of the speculum, and to depress the lips of the open os uteri, so as to allow the eye to penetrate and to ascertain how far the morbid dilatation, the result of inflammation, reaches. In the absence of the uterine sound, a common bougie will answer the same purpose."

But whatever instruments we may find it necessary or convenient to employ, and whatever remedial agents we select, there are certain general rules always to be kept in view. Dr. Bennett tells us: "The only caustic that can be used with advantage in inflammation of the cervix, without ulceration or hypertrophy, is the nitrate of

silver, which acts, however, more as an *astringent* than as a caustic."

Now these are precisely the cases, and they are very common, in which neither the nitrate of silver, nor caustics, nor astringents of any kind, are required. The ordinary method of applying water-cure is amply remedial, especially if the dietetic part of the regimen be duly regulated. It is only when ulceration, hypertrophy, or other change of structure exist, that I would use caustics of any description.

Even recent hypertrophied conditions and slight ulcerations are very often cured by the same means alone. But whenever inflammation is reduced, and hypertrophy or induration remains, or when ulceration progresses despite of these measures, I would, as already explained, apply caustic.

"The fibrous framework of the mucous membrane covering the cervix is so slight, that the healing of an ulceration, however deep, is never followed by the formation of hard cicatrices, as in the healing of ulcerations of the skin, when they involve its fibrous structure. The mucous membrane of the cervix, indeed, seems, as it were, to be renewed. Even when a deep slough has been formed by the action of a powerful caustic, such as potassa fusa, or the actual cautery, in the course of a few months, or even weeks, all trace of the cicatrix disappears, and the cervix again becomes soft and supple." (*Bennett on the Uterus*).

When ulceration is detected in the cavity of the cervix, the solid nitrate of silver may be introduced, through a speculum, as far into the cavity as it will enter; or a camel-hair pencil loaded with the powder.

or a saturated solution, may be employed in the same manner. The only drawback on the use of the solid nitrate of silver is the liability of the stick to break, as has several times happened. The fragment can, however, usually be extracted with the speculum forceps (the end being made purposely small) without difficulty, or if the piece should remain, no very serious consequences will be likely to follow if tepid water be freely injected.

The pain attending the application of nitrate of silver is sometimes very prolonged; but generally the patient only experiences a temporary smarting. Customary pains about the ovarian and lumbar regions are often aggravated by its use.

Dr. Bennett remarks: "The application of caustic frequently gives no pain in the first stage of the treatment, when the sore is indolent; whereas, when the vitality of the ulceration has been modified by treatment, its use becomes acutely painful. The change is rather trying to the patient, who is apt to think herself worse on this account, unless, from the first, apprised of the possibility of its occurrence. This takes place more especially with those females who, although suffering from a considerable amount of uterine disease, present little or no local evidence of its existence."

The nitrate of silver, in solution, is sometimes a useful application to alternate with stronger caustics, when the part is so irritable or painful that the latter can only be employed at long intervals.

When the strong acids are employed, dossils of cotton or lint, tied to a stilet or piece of wire, can be dipped in the fluid, pressed moderately, so as not to drip, and in this way applied to no more surface than is desirable.

The speculum (through which the caustic is applied) should not be removed until the cauterized tissues have been wiped entirely dry with cotton or lint.

The caustic of potassa and lime has been made into a paste with a few drops of alcohol, and applied by M. Gendin thus: "A large conical speculum being first introduced, the uterine neck is made to enter its orifice; or should the cervix be too voluminous, the speculum is firmly pressed on the part which it is intended to cauterize, great care being taken not to inclose a fold of the vagina between the rim of the speculum and the cervix. About as much of the paste as would cover a fourpenny piece, a line in thickness, is placed on a triangular piece of diachylon plaster, one end of which is inserted in the cleft extremity of a common bougie. The caustic paste is then carried, by means of the bougie, to the cervix, and applied to the center of the part comprised within the speculum. With the long forceps, cotton is placed carefully all round the spot on which the caustic paste is applied, so as completely to protect the neighboring parts; and the bougie having been withdrawn, the speculum is two thirds filled with cotton or lint, which is firmly pressed against the uterine neck. The speculum is then slowly extracted, the cotton which fills it being at the same time forcibly pushed back in the vagina, with the forceps, as the speculum is withdrawn, so that the vagina remains thoroughly plugged. If this be carefully done, the caustic can not fuse and injure the parieties of the vagina. In about fifteen or twenty minutes the cotton or lint must be carefully withdrawn by means of a bivalve speculum gradually introduced, and an eschar of the size of a shilling, or rather larger,

will be found where the caustic was applied. The vagina should then be washed out with a little tepid water, complete rest in bed enjoined, and emollient injections [warm water is all-sufficient] employed until the separation of the eschar, which takes place from the fifth to the eighth day."

Dr. Bennett, however, rejects the above plan, for the very good and sufficient reason that he has found a better one. His method of using the potassa cum calce is certainly more simple, and probably less liable to accidents. He says: "For the last two years I have not once used either the Vienna paste or the pure hydrate of potassa. I now always substitute cylinders of potassa cum calce, which, with the assistance of Mr. Senior, of Oxford Street, I have succeeded in obtaining similar to those of nitrate of silver in ordinary use. M. Filhos, of Paris, appears to have been the first to discover, some ten or twelve years ago, that it was possible to fuse potassa and lime in variable proportions, and to run the preparation into solid lead tubes. Not finding M. Filhos' first tubes of fused potassa cum calce by any means as energetic or as efficacious as the Vienna paste or the hydrate of potassa, I long only used them for superficial cauterization. Some time ago, however, having received several from Paris, which were much more powerful, the proportions of potassa being greater—two of potassa to one of lime—I requested Mr. Squire to fuse these substances for me in the above proportions, and to run them into soft metal tubes. The fluid potassa cum calce invariably melting the tubes, we determined to have iron moulds of various sizes made, and to run it into these. I have thus succeeded in obtaining cylinders

of potassa cum calce, which can be used with the greatest ease, and with perfect freedom from risk, owing to their not fusing as pure potassa does, although nearly as powerful in the effects they produce as the latter substance itself. They are not free from a tendency to deliquesce, soon becoming spongy if left exposed to the atmosphere; but if applied to a dry, or nearly dry surface, the action of the caustic does not extend beyond the part touched."

In relation to the mode of applying these cylinders of potassa with lime, the same author observes: "All that is necessary is to see the cervix well isolated in the speculum, to wipe off the sanies that oozes from the surface cauterized, and then to apply a cotton pledget, moistened with vinegar and water, and tied to a piece of thread, which is to remain as a dressing on the withdrawal of the speculum, and which the patient can herself remove in the course of a few hours. These precautions are necessary, as, for two or three minutes after the application of the caustic, a straw-colored fluid exudes—especially if it has been carried into the cervical cavity—which may slightly cauterize the parts with which it comes in contact."

It is convenient to have several sizes of these cylinders, some larger and others smaller than the ordinary nitrate of silver pencils. I need hardly say that very small cylinders must be used if the cavity of the cervix uteri is to be cauterized. The small sizes may be fixed in the "fluid caustic holder," and the large ones in the "nitrate of silver holder." Severe cauterization should not be resorted to during the menstrual period, nor within ten or twelve days of the flux.

When the actual cautery is resorted to, the same rules are applicable to its management. Olive-shaped cauteries, sufficiently large just to pass within the os uteri, when this is morbidly dilated, are to be preferred.

It must be borne in mind that, in applying caustic to chronic enlargements, or indurations, or hypertrophied conditions of the cervix uteri, the intention is not to remove nor destroy the enlarged and hardened structure entirely, but to establish an eschar in its center, of a limited extent, so that by the moderate degree of suppuration which ensues, the absorbents will be enabled to carry off the morbid depositions, and thus overcome the swelling. In malignant tumors and corrosive ulcers, however, it is necessary to destroy all the morbid structure.

CHAPTER VII.

MENSTRUAL DISEASES.

The disorders of the menstrual function may be arranged under the heads of obstructed, laborious, excessive, vicarious, and irregular mismenstruation, and chlorosis, or green sickness. Leucorrhœa more or less attends various forms of menstrual derangement, and may hence be properly enough considered in the present chapter, although it is frequently symptomatic of inflammatory affections and displacements of the uterine organs, not necessarily connected with any form of mismenstruation.

Obstructed Menstruation—Amenorrhœa.—This variety of mismenstruation is subdivided by some authors into *retention* or *absent menstruation—emansio mensium—* and *suppressed menstruation—suppressio mensium;* to which other authors add *irregular menstruation*—the menses being irregular as to time, quantity, and quality, without actual suppression.

Symptoms.—Retention, when a morbid condition, is attended monthly with shiverings, pain in the back and loins, weight in the pelvis, aching down the thighs, general lassitude, and often palpitations and "rushes of

blood" to the head. When the body is full or plethoric, there is flushed face, thirst, quick pulse, and febrile disturbance.

When the absence of menstruation is owing to malformation or absence of the ovaries, there will be no monthly disturbance like a menstrual effort, notwithstanding the body may be well developed, and all the functions, save menstruation, well performed.

When the retention is owing to imperforate hymen, or other mechanical impediment to the exit of the blood, the uterus may be distended to a dangerous degree, or even ruptured.

In *suppressed menstruation* the catamenial flow is arrested, after having been once established. When it occurs suddenly, as from cold, more or less fever, with frequent headache, hot skin, quick or frequent pulse, nausea, thirst, hysterical paroxysms, etc., occur. The brain, lungs, stomach, bowels, and uterus, are each liable to inflammatory attacks. Paralysis, apoplexy, aphonia or loss of voice, deranged vision, amaurosis, and cutaneous affections, are among the occasional consequences. Leucorrhœa is also generally present, if the disease has continued for some time.

Irregular menstruation is usually symptomatic of dyspepsia or general debility. Constipation, headache, pale complexion, "nervousness," pain in the back and sides, with frequent "ups and downs" in respect to the general health, are its leading symptoms.

Causes.—Congenital malformations may either prevent the menstrual action entirely, as in cases where the ovaries are wanting, or prevent the expulsion of the menstrual fluid, as in cases of impervious cervical canal,

closed os uteri, absent or adherent vagina, false membrane, imperforate hymen, etc.

The causes of "simple amenorrhœa" is well stated by Dr. Locock: "The causes of this condition are generally found in the previous habits of the patient; for it is most frequently met with in those who have led sedentary and indolent lives, who have indulged in luxurious and gross diet, and been accustomed to hot rooms, soft beds, and too much sleep."

Suppressions arise from colds, bodily or mental shocks, depressing passions, fevers, or from disease of the uterus or ovaries.

Treatment.—In nearly all cases of retention or suppression not dependent on structural impediments, the water-cure appliances, though sometimes slow in effect, are nevertheless almost certain to effect a perfect restoration of health. Should there be much feverishness of the system, with a full, plethoric habit, the wet-sheet pack, for an hour, should be employed a few times. Derivative half, hip, and foot baths, are always to be employed once, twice, or thrice daily, according to the strength and temperature of the patient. But they should be neither so cold nor so prolonged as to occasion much chilliness. The hot-and-cold foot-bath at bedtime may be resorted to when headache is a troublesome symptom. The warm vaginal douche (which has lately been so successfully employed in Paris to induce abortion in cases of deformed pelves) is one of the most efficient remedies we can employ. A moderate cold douche to the spine is also serviceable. The wet-girdle should also be worn a part of the time. All these measures must be combined with plain, coarse, simple food, and as much

active out-door and on-the-feet exercise as the patient can bear. When there are, at the usual monthly periods, evidences of an effort to establish the function, it should be aided in every possible way. An excellent plan of medication at this time is dancing or jumping exercises, the cold douche daily to the spine, the warm vaginal douche twice a day—once immediately succeeding the cold douche, and a diet of wheat-meal gruel and toasted brown bread.

When the cervical canal is impervious, an artificial one may be made with a trocar. If the os uteri is closed, it must be probed, or its obstructing membrane punctured. When the vaginal canal is obliterated, an artificial one may be formed, if there is sufficient space between the rectum and bladder; or, if not, the parts may perhaps be gently torn asunder, and the newly-formed passage kept dilated by sponge tents or bougies. If all these measures fail or prove impracticable, the uterus may be punctured through the rectum.

Imperforate hymen and vaginal adhesions may generally be ruptured by separating the labia and vagina; but, if not, they can be readily divided with the bistoury or trocar.

Laborious Menstruation.—This variety of mismenstruation is the *dysmenorrhœa*, or painful and difficult menstruation of authors. The menses may be scanty, profuse, or in ordinary quantity, but the menstrual flux is always accompanied with severe pain. Churchill has given us *neuralgic*, *inflammatory*, and *mechanical* subvarieties, the latter dependent on mechanical obstruction of the passage; but as all of these pathological condi-

tions may exist coincidently or alternately, the distinction is rather nice than necessary.

Symptoms.—In difficult or laborious menstruation, the pain varies from slight indisposition to the most excruciating suffering. The majority of the cases we meet with have been troubled for years. And females of a nervous temperament, pale complexion, and thin, delicate constitutions, are generally the subjects of this form of mismenstruation.

The monthly periods are attended with neuralgic or inflammatory paroxysms, preceded usually, for a day or two, by sensations of deep-seated coldness, general uneasiness, headache, pain in the back, mostly commencing in the region of the sacrum, and extending around the pelvis and down the thighs, sometimes constant and at other times intermittent. Frequently there is a distressing sense of *bearing down*, not unlike labor pains, and often equal to or exceeding those of actual labor. The menstrual discharge is usually irregular, and often mixed with clots of blood. A preternatural membrane often forms on the mucous surface of the membrane, whose expulsion, either in fragments or entire, is attended with severe uterine contractions. This membrane, the nature of which has been the subject of many crude and some ingenious speculations with pathologists, is a morbid secretion (the result of inflammatory action), analogous to that which takes place on the mucous membrane of the trachea in croup.

Causes.—Whatever tends to impair the general health may rank among the causes of painful menstruation. Those which more especially conduce to this disease are, repeated colds about the commencement of the menstrual

function, especially if connected, as is usually the case, with sedentary habits and constipated bowels. Sometimes the inflammatory condition of the uterine system induces a stricture or narrowing of some part of the cervical canal, or this condition may be congenital, constituting the *mechanical* variety. It should be stated, however, that the existence of stricture does not always occasion dysmenorrhœa, as cases have occurred where dilatation of the cavity produced no relief.

Treatment.—During the paroxysms we can but little more than mitigate the sufferings of the patient. The warm hip-baths, tepid or warm injections, as either proves most sedative, with injections, if the bowels are not entirely free, are always serviceable. In severer cases, the full warm or hot-bath is necessary. In some of the worst cases I have ever seen, the patient could find no plan of relief so effectual as covering up warm in bed—essentially the dry pack—and so remaining for hours together.

Occasionally there will be that degree of general feverishness or local inflammation, in which tepid or moderately cool water will be best calculated to allay the pain. And here, as everywhere, our applications, as respects temperature, must have reference to the sensations of the patient.

During the intervals, we are to direct our measures with a view to a radical cure; and for this the remedial plan is essentially the same as for amenorrhœa, due regard being had to the more feeble, debilitated, and susceptible condition of this class of invalids.

Out-door habits, open air and walking exercises, are especially important, and the dietary must be regulated by the strictest rules of hygiene.

Dilatation of the cervical canal has been found useful in some cases. The operation is not usually attended with much pain or difficulty; and as, if judiciously performed, it involves no danger, it may be resorted to if the other measures fail.

The usual method of dilatation consists in the introduction of elastic bougies, commencing with one of small size, and gradually increasing them until one can be passed as large as an ordinary male catheter. The instrument may be introduced two or three times a week, and allowed to remain a few minutes each time. Force must never be used in passing the instrument.

Dilatation with compressed sponge is, however, preferable in most, and probably all cases—very small cones, from an inch to an inch and three-quarters in length, tapering down to a small, blunt point, and covered with a thin coating of wax. One of these cones is pushed into the cervical canal by means of a stilet, as far as it will go, and there left for twenty-four hours. The wax melts and forms a coating to the sponge, and protects while it imperceptibly dilates the tissues. At the end of twenty-four hours, or thereabouts, the patient can easily withdraw the sponge herself, by means of the silk or thread which should be fastened to it so as to protrude externally. The expansion of the sponge often produces a sensation of pressure or stretching, but not amounting to much pain. When very small tents are to be used, the speculum is necessary. To avoid injurious irritation, the sponge should not be introduced oftener than twice a week. A sufficient amount of dilatation can usually be effected in two or three weeks.

"If imperfectly introduced," says Bennett, "it may

soon fall out and be found lying in the vagina. It is generally easy to tell which part of the tent has expanded in the cervical canal, as it is much less swollen than that which has not entered, and which has freely expanded in the vagina. A decided contraction indicates the line of demarkation. If the entire tent is uniformly and fully developed, as if it had been soaked in water, the probability is that it either never was really introduced into the cervical cavity, or that it was expelled before it had time to dilate."

In concluding this chapter, I am happy to be able to quote so good an authority as Dr. Bennett, in favor of the simple and abstemious dietary our system enjoins, or, rather, against the usual practice of stuffing and stimulating this class of invalids, with the view of giving them strength.

"The plan generally pursued with patients thus suffering, who, because they are weak and debilitated, are gorged with meat and stimulants, and drenched with steel and quinine, must be injurious instead of beneficial. That it is injurious my daily experience demonstrates. I constantly meet with patients who have been thus treated for months and years, and who, instead of deriving any benefit from the good living and tonics which were to build them up, have gradually become more and more debilitated, emaciated, and feverish."

Excessive Menstruation.—Menorrhagia.—Those authors who regard the menstrual flux as a secretion, have restricted the term "uterine hemorrhage" to floodings connected with pregnancy and parturition, while *menorrhagia* is applied solely to that form of mismen-

struation in which the flow is excessive, either from being too frequent, too profuse at the normal period, or too prolonged. In all cases, however, the flux is really hemorrhagic.

Symptoms.—The general symptoms are those of anemia or bloodlessness, as debility, languor, dislike of exertion, weakness across the loins and hips, headache, throbbing of the temples, giddiness, paleness of the countenance. The abdomen is sometimes painfully distended; clots of blood are frequently seen in the discharges, and, in severe cases, anasarca, diarrhœa, melancholy, and "nervous" symptoms attend.

Causes.—Excessive sexual indulgence, repeated child-bearings, over-exertion, grief, or other depressing emotions, often induce it in married females; and with the unmarried, violent passions, excessive fatigue, hot and stimulating drinks, highly seasoned or highly salted food, the free use of alkalies, especially saleratus, and drastic purgatives, are among the most frequent causes. Self-abuse has induced it in some cases which have come under my cognizance. Nearly all patients affected with menorrhagia are subject to the "whites" between the menstrual periods.

Treatment.—There is some discrepancy in the practice of water-cure physicians as to using cold or very cold hip-baths and vaginal injections in profuse menstruation. Some of the "old-school" doctors declare the practice of "throwing any cold fluid into contact with the uterus during menstruation as very hazardous, and liable to convert the periodical and temporary congestion into serious inflammation."

Now, this danger or hazard may be real or imaginary.

It is real, provided we throw the cold water upon the uterus, and then leave all else undone. But it is wholly imaginary, provided we attend properly to all the circumstances of the case.

We always have in view, in applying cold water locally in this disease, the *sedative* effect of the baths during menstruation, and the *tonic* effect during the intervals. Hence the hip-baths should not be very cold, lest greater congestion or violent reaction follow, nor prolonged to the extent of producing chilliness. It is always important, too, to keep the general circulation well balanced. If the feet are cold, warm them in hot water or by means of hot bottles; and employ hip-baths once, or twice, or thrice daily, according to the copiousness of the discharge, of a moderately cool temperature, say 70° to 75°, for ten or fifteen minutes. Cold water thrown freely into the rectum by a pump syringe, and cold wet cloths on the abdomen, with quietude and rest in the horizontal posture, are certainly safe, and generally effectual in restraining the hemorrhage.

The surface of the body may be hot and feverish, or cold and torpid. In the former case, the half-bath at 75°, or the wet-sheet pack, for thirty to forty minutes, may be useful; and, in the latter case, sponging the body with tepid water, and rubbing over a dry sheet, or enveloping the patient in the dry blanket pack for fifteen or twenty minutes, will assist in promoting the external capillary circulation.

Under this plan of management, vaginal injections, moderately cool, are perfectly safe, though seldom actually necessary.

During the intervals, the temperature of the water for

all the baths employed should be just as cold as the patient can react comfortably under, and no colder. Vaginal injections can then be employed once or twice a day, as cold as can be borne without pain, with decided advantage. The wet-girdle should be worn, and all the measures heretofore indicated as conducive to general invigoration should be rigidly enjoined.

The diet must be as bland and unirritating as possible. Alkalies, salt, salted meats, shell-fish, and seasonings are bad,—*very bad;* in fact, flesh, fish, and fowl of any kind are especially objectionable, while eggs and milk are far from being commendable.

Vicarious Menstruation.—When the menstrual flow has been suddenly checked, a vicarious discharge of blood sometimes takes place from the nose, eyes, ears, gums, lungs, stomach, bladder, or from abraded or ulcerated surfaces. In some instances, profuse sweating from the back of the head, and copious driveling from the salivary glands, occurring monthly, have substituted the menstrual *molimem*.

Treatment.—When the vicarious hemorrhage is immoderate, as is sometimes the case when it occasions epistaxis, hæmoptysis, and hæmatemesis, cold cloths, frequent sips of ice water, and, if the patient be plethoric and feverish, the dripping sheet or half-bath should be employed to check the bleeding, precisely as in cases of idiopathic hemorrhage; after which our treatment should be directed to the restoration of the menstrual function, as in cases of ordinary suppression.

Irregular Menstruation.—Cessation of the Menses.—The "turn of life," as the cessation of the phenomena of menstruation is familiarly termed, is not an abnormal condition, nor is it necessarily attended with disease or suffering. But such are the enervating and disease-producing habits of civilized society, inducing various and serious ailments, both at the commencement and cessation of menstruation, that most females are accustomed to regard either epoch with considerable alarm and apprehension.

It is very true that various organic diseases of the uterine system, as tumors, ulcers, and other abnormal and malignant growths, are more liable to occur about the time of the menstrual decline; yet I believe such are by no means natural nor necessary, but wholly the results of unphysiological habits and customs. We never find in healthy females, either of the human species or of the lower animals, any peculiar tendency to disease at these times.

Symptoms.—When the menstrual cessation is morbid, the most common manifestation of it is frequent and exhausting hemorrhages. Vicarious bleedings are liable to occur, and colics, inflammatory attacks, vertigo, hysterical paroxysms, neuralgic or rheumatic pains, eruptions, sweats, leucorrhœa, dropsical swellings, enlarged breasts, etc., are frequent concomitants.

Treatment.—Careful attention to diet and regimen, gentle exercises in the open air, entire freedom from anxiety and harassing care, avoidance of strong mental emotions, and strict abstinence from sexual indulgence, are essential parts of the remedial plan. In other respects, the management of the patient must be regulated

by the principles applicable to the preceding forms of mismenstruation, as the symptoms will all appertain, as far as curative measures are concerned, to amenorrhœa, dysmenorrhagia, or menorrhagia.

Chlorosis.—The term chlorosis, or "green sickness"—the *chlorose ou pâles couleurs* of the French—is applied to any form of mismenstruation occurring at or near the period of puberty, which is accompanied with general debility, anemia, deranged digestion and deficient assimilation, and other evidences of a feeble condition of the vital powers generally, and a want of energy in the uterine system particularly. A livid or greenish hue of the complexion and skin is more or less apparent in chlorotic patients—hence the term "green sickness."

Symptoms.—Constipation is almost always a prominent symptom. There is, too, diminished sensibility, general torpor, impaired digestion, often attended with nausea and vomiting, irregularity of respiration, short breath, palpitations on slight exertion, and occasional attacks of diarrhœa. Anasarca sometimes results; the patient is constantly liable to headaches and hysteria; the surface has a flabby or doughy feel, and the sexual passion is depraved, or altogether absent. Chorea, epilepsy, and amaurosis often attack chlorotic girls, and consumption is not an uncommon sequel.

Diagnosis.—It seems hardly possible to mistake this affection for any malady known to medical men; and I only notice the subject for the purpose of commenting on a peculiar method of diagnosis proposed by Marshall Hall, which may be called *diagnosis* by result. He proposes to bleed the patient; and then, if the loss of a few

ounces of blood cause fainting, we may conclude the case *is* chlorosis; whereas, if the disease be inflammatory, three times as much may be abstracted without any such result.

This is marvelous practice! It reminds one of the test once recommended to diagnosticate a certain malady or maliciousness denominated witchcraft. The suspected persons were to be tied and thrown into a river; if they sank and drowned, their innocence was established; if they floated on the surface, they were judged guilty and sentenced to be drowned!

Dr. Churchill well replies: "There is one serious objection to this test—namely, that abstracting blood from chlorotic or anemial patients is the most hazardous experiment possible."

An equally egregious blunder has been made in the diagnosis of syphilis. Dr. Good gives us, among its diagnostic symptoms, "speedily and uniformly yielding to a course of mercury when it agrees with the constitution; less certainly and with more difficulty yielding without it." Now, if mercury should disagree and kill the patient, the test fails; but if the patient get well under it, it *is* syphilis; if the mercury neither kills the patient nor cures the patient, why, then, it is not syphilis! Can any thing be more absurd? And the absurd becomes ridiculous when we notice the fact, that of 80,000 patients treated in European hospitals, one half who were treated without a particle of mercury got well sooner, and with fewer secondary symptoms, than the other half who were subjected to mercurial treatment.

Causes.—All the causes of menstrual derangement heretofore named tend to the production of chlorosis—

sedentary habits, close apartments, overtasked brains, constipating and luxurious aliment. It is sometimes endemic in large manufacturing towns, where hundreds of girls are badly fed and badly worked. It ought also to be more generally known, that habits of self-pollution, so common in boarding-schools and manufacturing places, where a large number of young ladies are stuffed with the learning of the books, instead of being educated in the elements of useful knowledge, are much more frequent causes of this malady than is generally supposed. I have known many cases of chlorosis among the most opulent families of this city, as well as among the "first families" of the country, which were induced by self-abuse. Nor is it uncommon to find, in boys of ten to eighteen years of age, a train of corresponding constitutional infirmities, brought on by the same unfortunate habit.

Treatment.—Aloetic purgatives, and the various preparations of iron, constitute the almost universal routine practice of the drug physicians. And the fact that chlorotic patients frequently get better during the administration of these drugs, is certainly a plausible argument in favor of their utility. But I apprehend they are, even in those cases in which they seem most advantageous, only a choice of evils, while in many cases they are, beyond all question, much worse than useless. Were this not the case, why should there be such a host of "cure-alls" recommended by physicians of the same school?

It is very true that torpid functions are sometimes aroused by the commotion that pervades the organism when a poison is introduced; and not unfrequently it

happens in the practice of the drug system, that an improved condition of one function is the result of a diversion of vital power from all the others, at the expense, however, of the whole system; as cod-liver oil is known to fatten patients and animals, by expending that vital power on the digestive system (or rather in its defense) which ought to be devoted to the maintenance of the integrity of all the functions and parts of the organism.

It may be that aloes, or salts, or even mercurial purgatives, are not so great an evil as the constipation which results from the patient's dietetic and other habits; and it is possible that keeping the bowels open for a few weeks, although we employ the most virulent and injurious irritants known, would enable the menstrual function to become established, when by totally neglecting their action, or rather continual interfering with it by the use of constipating food, we would prevent its ever taking place. And this, I think, is the best possible view we can take of drug-medication in any case. It is still always in itself an evil, and an evil to be avoided when possible.

And it is possible. We *always* have a better resource in hygiene. The bowels can be rendered free and active without the general system being injured, or themselves debilitated, by the use of cool water injections daily, hip-baths, with frequent manipulations of the abdominal muscles, a dietary of unfermented bread made of unbolted flour, with the addition of fruit and vegetables, and such other hydropathic appliances as the circumstances of each case demands.

LEUCORRHŒA.—The "whites"—a whitish or colorless

discharge from the vagina—alternates more or less with nearly all forms of excessive, irregular, or chlorotic mis-menstruation, and sometimes with obstruction of the menses. In many cases, it becomes a constant, acrid, muco-purulent, and very debilitating flux. In most cases of uterine displacement it is a concomitant, and generally increases with the length of time the malposition has existed.

Symptoms.—Some authors distinguish the disease, or the "attack" as they term it, into *acute* and *chronic* varieties; but as the former term is merely applied to more violent and painful symptoms, instead of regularly marked periods of accession, progress, and decline, I do not see the pertinency of the distinction. The fluid discharged may be secreted by the mucous membrane of the vagina, or of the uterus, or both; and for this reason some authors have undertaken to diagnosticate between *vaginal* and *uterine* leucorrhœa—a distinction practically of not much importance. In mild cases, there is languor, weakness in the back and loins, occasional headache; and, in the severer cases, aggravated or constant pain, or aching in the back, sensation of weight in the uterus, and, if prolapsus also exist, bearing-down feelings. In time, the constitution suffers severely; the pulse becomes weak and small; the skin acquires a yellowish or greenish hue; the hands and feet are apt to become cold and clammy; the skin is occasionally hot and dry; the face is easily flushed, though generally pale; the eyes appear sunken and surrounded by dark circles; headaches are severe and frequent; and an eruption sometimes appears on the face and forehead. The discharge frequently acquires a greenish or brownish tint, and is sometimes so

acrid as to excoriate the labia, occasion intolerable itching or smarting, and even to communicate to the male urethra, when sexual commerce is indulged, an irritation and discharge somewhat resembling and sometimes mistaken for gonorrhœa.

Causes.—Constipation, worms, frequent abortions or child-bearing, repeated colds, excessive fatigue, protracted mental excitement, stimulating viands, emenagogue or forcing medicines, saline purgatives, vinegar and other strong acids, irritating or drug injections and pessaries, are the causes most frequently noticed by authors. Excessive sexual indulgence is a frequent cause, and self-abuse with single females has induced it.

Treatment.—When leucorrhœa is merely functional, we can treat it successfully on the general plan applicable to other forms of menstrual diseases. When connected with organic disease, we must, of course, direct our leading remedial measures to the primary malady.

Injections and hip-baths are especially important in this affection. But the temperature of the water should be carefully adapted to the circumstances of each case. Sometimes they have done injury by being employed too cold, especially at the commencement of treatment. Patients afflicted with leucorrhœal discharges come to us with all grades of inflammatory action, attended with fever, heat, pain, smarting, etc., or all degrees of torpor and debility, attended with weight, heaviness, bearing-down languor, lassitude, indigestion, etc. Hence, in the former class of cases, cool or cold water, at a temperature varying from 70° to 60°, will be most appropriate, as well as feel most agreeable; while, for the latter class, 70° to 85° is the desired temperature. In all

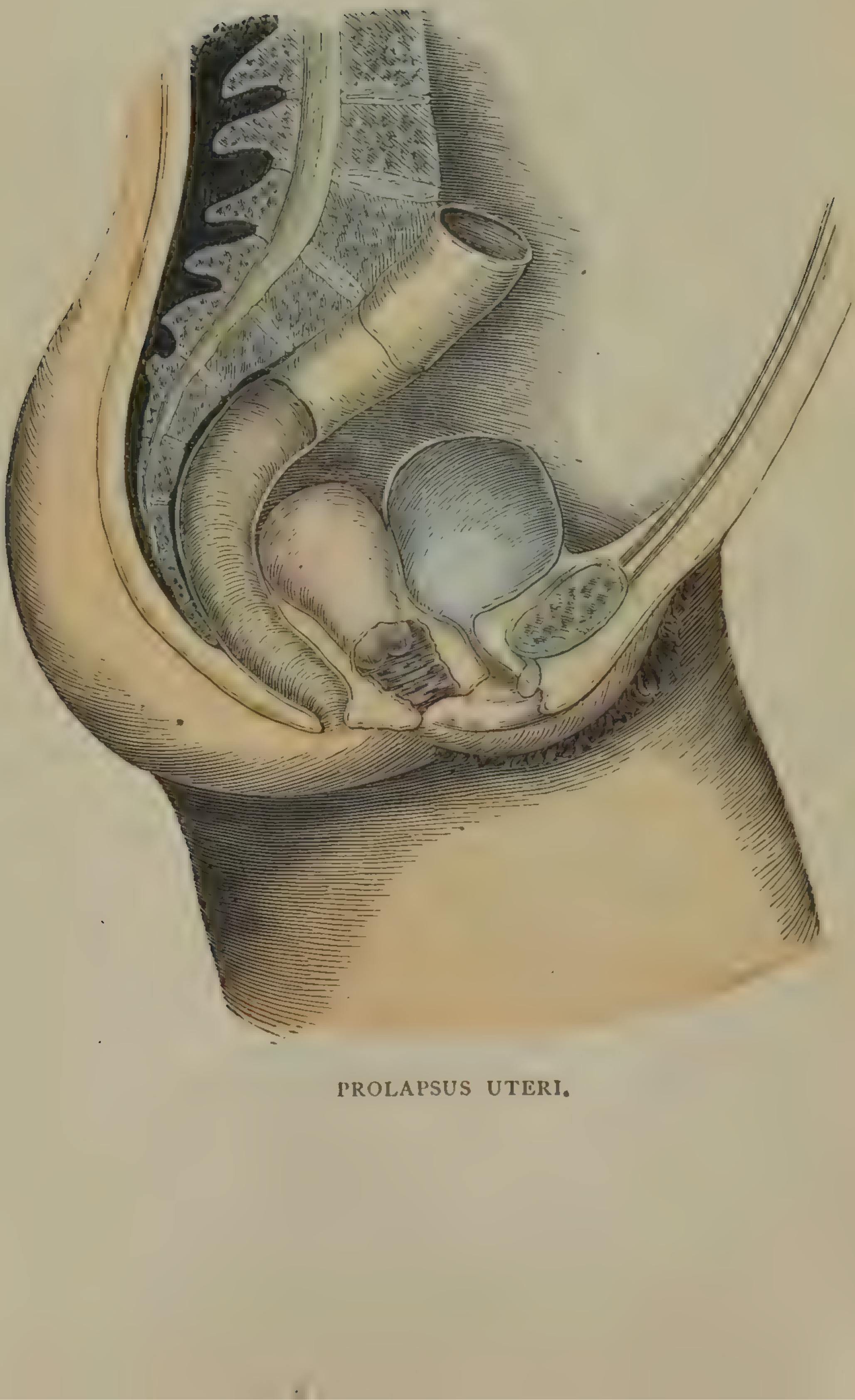
cases, the temperature should be modified—increased or diminished—according to the effect, the rule being to use it as cold as may be without causing pain or unpleasant chilliness.

The principle herein indicated applies also to the wet-girdle. Some few patients are so cold and bloodless that they can not wear it with advantage, and others are so inflammatory or feverish that it proves highly beneficial. Whenever it can be borne without discomfort, it may be re-wetted as often as it becomes dry, and worn day and night for two, three, or four weeks, or until it produces some degree of irritation, or something like a rash on the skin, after which it will usually be better to omit it during the night; and, as the cure progresses, its employment may be reduced to a part of each day, or even an hour or two per day.

I direct, as a general rule, injections and hip-baths two or three times a day, in those cases attended with much inflammation; and once or twice daily in those where debility is the prominent condition. I must here, however, particularly caution routinists against using too cold water when the case is complicated with that degree of displacement, especially in retroversion of the uterus, which disables the patient from taking much exercise.

The constitutional treatment, regimen, etc., is the same in this as in all forms of menstrual derangement.

FIG. 33.



PROLAPSUS UTERI.

PART II.

DISPLACEMENTS.

CHAPTER I.

PROLAPSIONS OF THE WOMB.

Synonyms.—*Prolapsus uteri; Procidentia uteri; Descensus uteri; Eloptosis uteri; Relaxatio uteri.* French: *Descente de la matrice.* German: *Vorfall der Gebärmutter.* Prolapsus of the uterus; falling down of the womb.

Description.—Prolapse, falling, or descent of the womb, is a depression of the organ below its natural situation in the pelvis. Of course, there are various degrees of this form of displacement, the distinctions of which constitute its varieties.

Varieties.—For convenience, we may distinguish three forms, stages, or degrees of this misposition. 1. *Prolapsus*, a depression of the organ to near the middle of the vagina. (Fig. 33.) 2. *Procidentia*, when the os uteri descends to near the labiæ, the body of the organ occupying the lower part of the vagina. (Fig. 34.) 3. *Protrusion*, when the organ is protruded, more or less externally, or "into the world." (Fig. 35.) In some

cases, the whole of the uterus falls through the os externum, and hangs down between the thighs.

Astruc distinguished three degrees of prolapsed uterus, which he termed—*depression*, where the os uteri is found lower than usual; *prolapsus*, where the os uteri rests upon the perineum, the body of the organ occupying the cavity of the pelvis; and *procidentia*, where the uterus protrudes externally, dragging along the bladder and everting the vagina.

Manning made only two distinctions—the *imperfect* and the *perfect* prolapse; the former comprising all degrees of descent so long as the uterus remains within the vagina; the latter, all cases where it protrudes externally.

Davis recognized distinctions similar to those I have adopted, which he denominated *delapsion*, *prolapsion*, and *procidentia*.

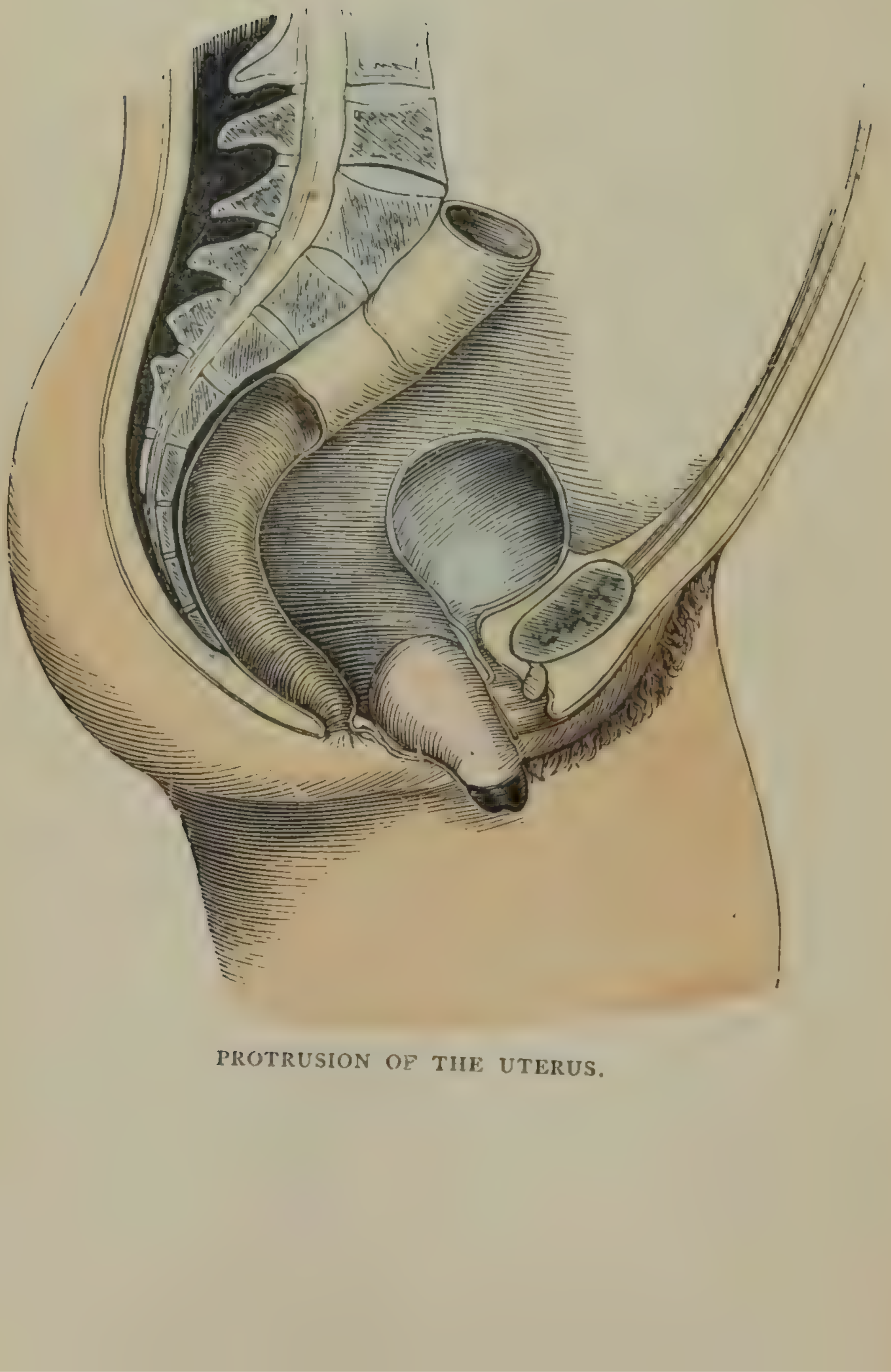
Symptoms.—As the distance of the os uteri from the external orifice of the vagina varies considerably, we can not determine prolapsus to exist, except when the lower portion of the uterus is found within two or three inches of the os vagina, unless accompanied with other symptoms of local derangement.

It is evident, from the anatomical structure and relations of the parts, that the cervix of the womb rests upon, and is mainly supported by, the vagina; hence the uterus can not descend without passing into the vaginal canal, or pushing the vagina along before it. The ligaments, which have generally been regarded as the main supports of the uterus, do not, probably, in the least protect it against prolapsus, when the vagina is sufficiently relaxed to admit of its descent.

FIG. 34.

PROCEDENTIA UTERI.

FIG. 35.



PROTRUSION OF THE UTERUS.

Dr. Clarke remarks: "Every degree of procidentia uteri may be met with, from that case in which the os uteri descends a little lower than its natural situation, to that in which the os uteri projects through the external parts, dragging with it the vagina, and forming a large tumor between the thighs of the woman, equal to a large melon. This will cause an alteration in the relative situation of the parts within the pelvis, and of the abdominal viscera, both regarding each other, and also the containing parts, as the parieties of the abdomen and the walls of the pelvis. The bladder, instead of being contained in the pelvis, falls down into the external tumor, dragging with it the meatus urinarius; so that in order to introduce a catheter in the bladder, the point of the instrument must be turned toward the knees of the woman; for, being placed in the usual manner in which the instrument is introduced, it will enter the passage, but it can not be made to pass into the bladder in that direction. The rectum, instead of taking the sweep of the sacrum, first dips down into the posterior part of the tumor, and afterward ascends into the pelvis. The Fallopian tubes and ovaria will, of course, be dragged down with the uterus, and the center of the tumor will be filled up by the small intestines which hang down into it (the mesentery being stretched); while the omentum will occupy any vacant space that may be left."

The disability, inconvenience, or suffering will bear a close relation to the degree of displacement. The uterine functions proper are not usually much interfered with. Menstruation is regularly performed in most cases, yet hemorrhage sometimes occurs. The patient complains of a sense of weight, fullness, and bearing down in the pel-

vis; also, a dragging from the loins and umbilicus. There is more or less pain or weakness in the back, usually extending around the groin. In slight cases the patient may be able to walk a long distance; but in severe cases she suffers distress from walking or standing. This symptom is almost always worse in the latter part of the day or evening. In the second and third degrees of displacement there is more or less difficulty in voiding urine and faeces; and in some cases urination can only be effected by lying down and returning the uterus more or less toward its normal position.

All the symptoms which result from the mechanical malposition of the parts are aggravated by the erect position. They are, except in cases of protrusion externally, relieved at once by the patient lying down. Leucorrhœa attends, and is generally proportioned in severity to the degree of prolapse. Strangury sometimes results from the extension of irritation to the neck of the bladder.

There are many signs, also, of constitutional derangement. The appetite is capricious; there is a sensation of sinking or "*goneness*" in the stomach; the bowels are torpid; flatulence is a frequent concomitant; the spirits are depressed; and the whole mental tone tends toward melancholy in proportion to the degree of the local difficulty. Spasms, hiccough, nausea, and vomiting are occasional attendants.

In all cases of prolapse, the os uteri will be found at the lower part of the tumor, which will alone distinguish this form of uterine displacement from all others. Sometimes, however, a polypus tumor may have a cleft or fissure, somewhat resembling the os uteri, when the

introduction of a bougie, if it be the os uteri, will dispel all doubt. The size of the uterine tumor is variable. When small, the patient may return it (when protruded externally) into the pelvis on lying down. But frequently it becomes so swelled and inflamed that reduction is impossible until these conditions are first reduced.

Generally the tumor has a firm, elastic feel. In *partial* prolapsus the womb is felt, on passing the finger through the vaginal orifice, filling more or less the cavity of the pelvis; and the vagina will be found relaxed, dilated, or thrown into folds. In *complete* prolapsus the tumor is pushed between or beyond the labiæ; it is of a conical form, or pear-shaped; and it is important to notice that *whether the upper or lower part be the wider depends entirely on the duration of the displacement.* In recent cases the apex of the cone will be downward; but in cases of long standing it is almost always at the mouth of the vagina.

Diagnosis.—As already stated, the presence of the os uteri at the lower part of the tumor is a symptom, in itself conclusive, of prolapsus. This misposition is not likely to be mistaken for any other displacement, unless it be *inversion of the uterus.* It may, however, be distinguished from *partial inversion of the uterus* by the presence of the os uteri inferiorly, by the smooth surface of the tumor, and by the absence of floodings, which are apt to be very severe in cases of partial inversion. In *complete inversion* there is extreme constitutional suffering, as well as floodings, which is not the case in prolapsus. Inversion, moreover, usually happens suddenly; whereas prolapsus generally comes on gradually.

In order to ascertain the exact degree of prolapsus, the

patient may be examined in the standing position, although, in ordinary cases, this is not strictly necessary.

Special Causes.—Prolapsus uteri occurs most frequently in women who have borne many children, or a few in rapid succession. It is, however, by no means an unfrequent condition with unmarried females; even young girls are occasionally afflicted with it. Hamilton remarks: "Of all the chronic diseases arising from a local cause, to which women in civilized society are liable, prolapsus uteri, or displacement of the womb, is perhaps the most frequent."

A slight prolapse is very common in the early stages of pregnancy; and complete prolapse is much the most frequently met with after delivery.

The chief proximate cause, or condition upon which this displacement depends, is, unquestionably, a relaxation, debility, or want of tone in the vagina. A weakness or debility of the external abdominal muscles also contributes to the misposition, a circumstance which has no small degree of influence with the sedentary and luxurious females of this country. Constipation, by inducing an irritable or inflammatory, and ultimately weakened condition of the pelvic organs, is a powerful predisposing cause. Self-abuse has produced severe prolapsus uteri in some cases. Leucorrhœa is usually assigned a prominent place among the causes, but is more frequently an accompaniment—an effect of the same cause which induced the prolapsus.

Dr. J. Oriander thinks that many cases of prolapsus in virgins are "the effect of a sudden exertion in moving the body, at a time when the usual supports of the uterus are relaxed, viz., during menstruation. While that pro-

cess goes on, every part connected with the uterus feels flabby and open to the woman herself, and any violent action of the locomotive muscles, as in leaping, or dancing, or running, must occasion displacement of the uterus, in the same way that it would force out a portion of the intestine, if the abdominal muscles were weakened at their ring."

I must dissent totally from this opinion. If the organs are in a normal condition, or, rather, if the whole system is in a healthy state, there would be no greater liability, in my judgment, at the menstrual period than at any other time.

Treatment.—In no department of "the healing art" have females been "better abused" or worse used than in the ordinary management of prolapsions of the womb. All the medicinal drugs which have been prescribed, and nearly all the machinery that has been invented, and much of the surgery that has been applied, have been predicated on false notions of physiology and pathology.

In order to demonstrate satisfactorily, as I hope, the confusion and sophistries, if not the falsities, of the standard medical works on this subject, I propose to examine briefly the records.

Churchill says: "In ordinary cases, the first and most general remedy to be employed is rest, for as long as possible, in the horizontal posture. If by this means the relaxation of the vagina and ligaments be not cured, at any rate it will be prevented from increasing."

Keeping the patient forever in the horizontal posture, to prevent the trouble from increasing, is rather poor consolation. But, *per contra*, says Hamilton: "Although

the horizontal posture immediately relieves the uneasy feelings of the patient, the author (long ago) *ascertained* that it tended not only to *impair the general health*, but also to *aggravate the disease*, by increasing the relaxation of the natural supports of the womb; and daily experience has established the validity of this opinion."

Next come astringents, as sulphate of zinc, sulphate of copper, nitrate of silver, galls in powder and in infusion, gum kino, tannic acid, infusions or decoctions of oak-bark, green tea, etc., solutions of alum, and the milder vegetable infusions, as of roses, arbutus, raspberry, catechu, etc. All of these things are commended by Burns, Blundell, and others, and condemned by authorities equally eminent. Hamilton replies: "The author's experience has convinced him that astringent injections into the vagina are apt to injure the uterus, rather than the canal into which they are thrown. He can *solemnly aver*, that of the numerous cases of chronic enlargement of the uterus which have fallen under his notice, by far the greater number had been unequivocally occasioned by the use of styptic injections *per vaginam*."

Pessaries are next in the order of the common routine treatment; and those of sponge, glass, cork, boxwood, ivory, thin metal, and gum elastic, globular and hollow, round or oval, spiral or cylindrical, have been called in requisition; and even *medicated* pessaries, made into a coarse muslin bag, and filled with bruised oak-bark or galls, have been resorted to; and, notwithstanding all these things have been advocated by the majority of authors, and some of them are employed by a majority of practitioners, there are some who have discovered their objectionable qualities, and testified against them wholly.

Professor Dieffenbach, of Berlin, says of pessaries: "I have frequently seen them produce putrid discharges from the vagina; in other cases, dilation to a most inconvenient extent; in others, contraction of the same organ; and finally, in other females, the still more dangerous accidents of cancerous or fungous productions from the vaginal mucous membrane"—rather a formidable list of objections, one might reasonably think.

Dr. Hamilton urges a variety of objections to them, among which is this: "They subject the patient to the charge of a medical attendant for life," a fact, perhaps, professionally appreciated by Denman and others, who are strenuous advocates for their use; for, says Denman, "pessaries, once fairly introduced, may often be worn for many years without any, or very little, inconvenience." Dr. Leake testifies against "those painful and indelicate instruments called *pessaries*, so often used with a *bad* effect;" for, says he, "instead of strengthening a weak part, they lay additional stress upon it, and, consequently, are highly improper."

To these testimonials it is sufficient to add the following words of Dr. Bennett: "Pessaries are perfectly useless as curative agents; so far from curing, they actually increase the tendency to prolapsus by irritating the inflamed tissues, and destroying, through distention, the natural contractility of the vagina."

Another form of pessary, intended to obviate the objections urged against the ordinary kinds, deserves a moment's notice. It is the invention of Mr. Goodman, consisting of an India-rubber ball, furnished with a tube and stop-cock, introduced empty and then inflated. It has the advantage of exerting a more equal and diffused

pressure, and is hence not liable to induce dilatation to the same extent, nor as apt to excite excoriation or ulceration.

The last resort of regular medication or chirurgication, and the one now in the "full tide of experiment," especially with the surgeon-accouchers of the French Academy, is that of cauterizing and cutting the mucous membrane of the vagina. The theory is, by corroding some portions of its surface by escharotics, or by cutting out various strips of the lining membrane, the cicatrization resulting from the wounds will contract the vaginal passage, and thereby afford greater support to the uterus. The theory is correct, but the practice is not only indelicate, but barbarous and unnecessary; and, besides, there is a better way.

Yet, as an improvement on the last-mentioned operation, which has been denominated *episoraphie*, it has been proposed to apply the red-hot iron to the mucous membrane, so as to cause it to shrivel up and contract. Dr. Kennedy reports having "succeeded" in this way; and other practitioners report that, in their hands, the operation failed.

Such is, briefly, the "present state of medical science" on this subject. Now let us turn from these abominations to a rational and natural plan of treatment. On referring to the cuts (Figs. 33, 34, and 35), we see at a glance the anatomical derangement. We can easily rectify this; that is, we can generally raise the uterus to its normal position; but it will not stay there. And why? A majority of practitioners admit, and seem to understand, that relaxation of the vaginal canal, on the upper portion of which the uterus rests, is one of the

principal causes of prolapse; others consider it the only cause; while many regard relaxation of the ligaments as among the causes. But each of them, with every author with whose writings I am acquainted, has entirely overlooked one of the chief difficulties—*weakness of the external abdominal muscles.*

Nearly all females who have a weakened and relaxed state of the vagina, have also a weakened and relaxed condition of the contractile tissues in the neighborhood, the muscles of the abdomen, the muscular coat of the intestines, as well as the muscular fibers of the vaginal passage. There is, too, in most cases, more or less general debility of the whole muscular system, although, in many cases, the constitutional debility is in great disproportion to the local.

To effect a cure, therefore, we must invigorate the local tissues especially, and the whole system generally. And invigoration simply means ability to act, to contract—motion. Now, I have known many cases of prolapsus cured by appropriate manipulations of the abdominal muscles, with very little internal treatment of any kind. In all cases of long standing the abdominal muscles are, to a greater or less degree, in one of two conditions. They are weakened, loose, and flabby, or they are weakened, hard, and rigid; in both cases deficient in contractile energy—motion, action.

So long, therefore, as these muscles remain torpid and inactive, so long will a cure be impossible. We may, indeed, reposit or push up the uterus once or a hundred times, but it will come down again as often.

The proper mechanical, "motorpathic," or "kinesipathic" treatment is essentially this. The uterus is,

whenever it is practicable to be raised with the finger, or some appropriate instrument, as near to the normal position as possible (the patient, of course, being in the horizontal position), and while the organ is in its place, or as nearly so as may be, the lower abdominal muscles are to be manipulated by the hand of the practitioner. When the vagina is very greatly relaxed, the uterus may require some artificial support *during the manipulations.* The best article we can employ is a piece of fine, soft sponge, adapted in size to the degree of dilatation; and the best way to introduce it is through a metallic tube, also adapted in diameter to the vaginal relaxation. In treating a large number of cases, three or four sizes will be required, the diameters varying from half an inch to an inch; the length of all may be the same—six or seven inches. As large a piece of sponge (of an ovoid shape) as can be compressed into the tube selected is placed in its outer extremity, and pushed, by means of its piston, through to, but not beyond, the other end. The inner extremity of the tube is then passed to the os uteri, and by means of the piston the sponge is pushed out of it, when, expanding, it makes an easy support while the manipulations are being performed. If it produces no pain or irritation, it may be left for a few hours, and then withdrawn by the patient or attendant, by means of a string, which should always be attached to it for this purpose.

In cases where there is considerable inflammation and tenderness, a thin capsule of India-rubber may be drawn over the inner extremity of the tube, into which the sponge will be pushed. It will then form a coat to the sponge, and enable it to be withdrawn with less friction.

These capsules must be made to order—egg or oval-shaped, with a narrow neck half an inch in length. I find three sizes necessary, corresponding, of course, to the pieces of sponge employed.

The replacement and manipulation may be repeated daily when there is but little tenderness or inflammation; otherwise, once in two or three days will be sufficient. The manipulations should be very gentle at first, and gradually increased in force as the treatment progresses.

Now as to the manner of manipulation. It may be in the way of rubbing, kneading, pounding, punching, compressing, etc. In some cases some kinds of exercises are best; and in a majority all are more or less useful. The practitioner should ascertain what particular muscles are most torpid or debilitated, and apply the greatest amount of "motorpathy" to them. The muscles of the abdomen, it will be understood, run in all directions, perpendicularly, transversely, and obliquely; hence they should be more or less rubbed in the direction of their fibers; that is, the recti muscles from the pubes upward to the umbilicus; the transversal across the lower part of the abdomen; and the external and internal oblique from the pubes diagonally toward the center of the lower ribs, and from the iliac regions toward the umbilicus.

Kneading all of these muscles, by pressing as hard as can be borne without pain, with the ends of the fingers, and also by compressing different parts with both hands at the same time, are among the most useful "gymnastics."

The bathing appliances must be adapted to the general health and local disease, precisely as in cases of inflammation, ulceration, and mismenstruation. As relaxation

is the special pathological condition in all cases of prolapsus, so our special therapeutic indication is to restore tonicity; and hence vaginal injections and hip-baths should be employed as cold as can be borne without actual distress. As a measure of precaution, however, we should commence with water of a mild temperature, and gradually lower it.

One of the most efficient means of restoring tone to the relaxed vaginal membrane is injections into the rectum. And here water may be used *very cold* with great advantage. As there is almost always in these cases some degree of constipation of the bowels, generally accompanied, too, with piles in some form, an excellent plan is to inject, *per anum*, a gill or so of cold water at bedtime, to be retained, if possible, during the night; and in the morning employ a free, cool, or cold injection just before the usual time of evacuating the bowels; or, if the bowels are not regular, soon after breakfast, so as to bring about a habit of regularity in this respect.

Another efficacious adjuvant, well calculated to insure firm and vigorous contraction, is a rigidly simple and abstemious diet. Indeed, without this all our other measures would fail in bad cases. The food can hardly be too plain, and if in quantity it verge a little toward the "Hunger-Cure," so much the better. Until all inflammation is subdued, and a reposition of the displaced organ permanently effected, no harm can come of a moderate application of the "starvation system." Meats, gravies, grease, and soups are especially to be eschewed, and the leading articles of food should be restricted to Graham bread, wheaten grits, hard crackers,

unfermented bread-cakes, hominy, etc.—with no seasonings except a very little sugar or milk—and a moderate allowance of fruits and vegetables.

As to "free exercises" on the part of the patient, walking is, on the whole, the best of the active kind. But when the prolapse amounts to protrusion, or even procidentia, the walking should be very moderate at first, but should be gradually increased as the muscles become elastic and vigorous. It should always be so restrained as not to induce much pain, sense of weight, or bearing down in the pelvis.

All of those gymnastic exercises which are calculated to increase respiration, expand the chest, and thus arterialize the blood and invigorate the circulation, such as throwing the arms outward, striking the elbows backward, etc., are also eminently serviceable.

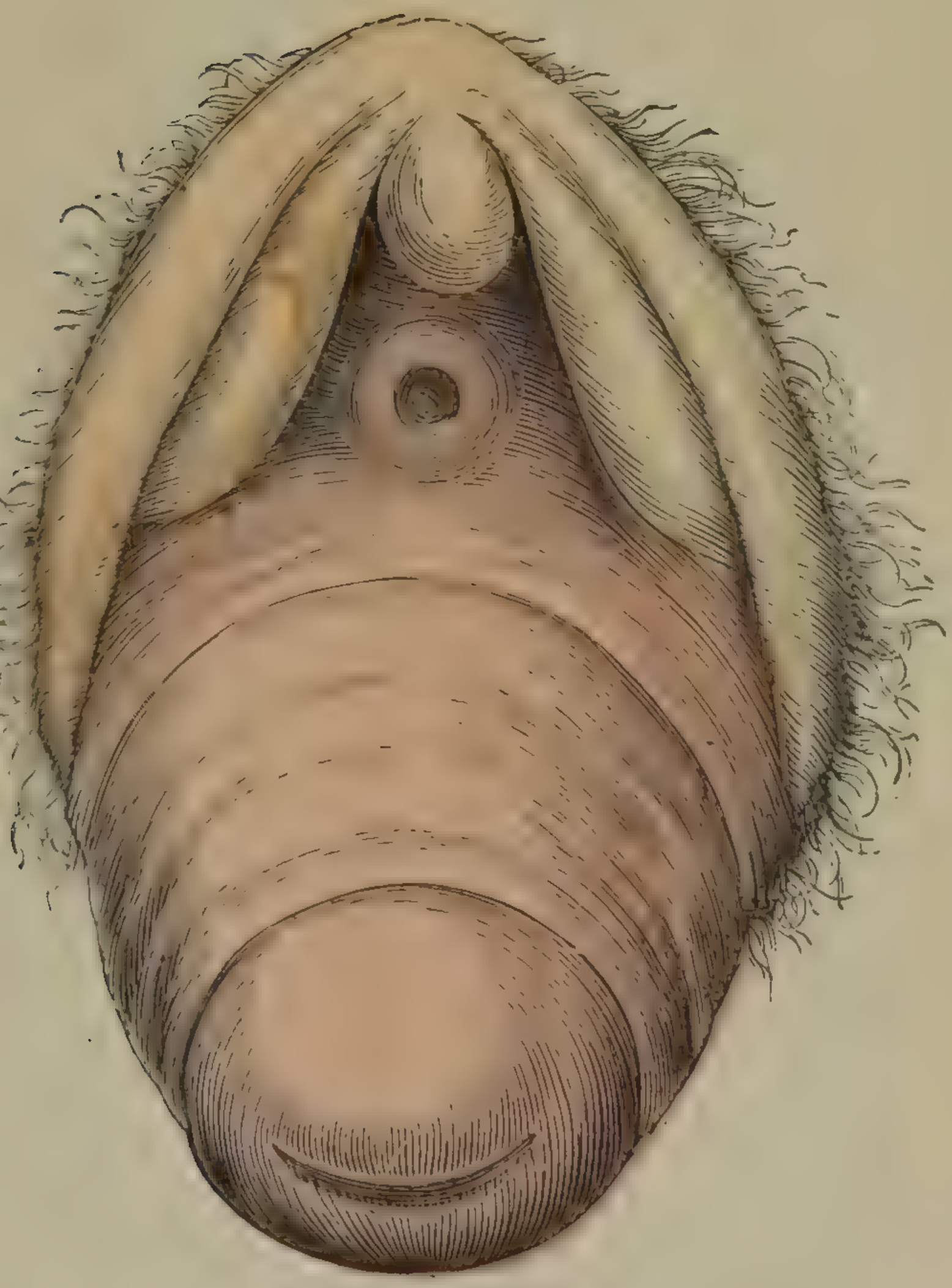
There is one "element of hygiene" yet to mention; and in many of these cases it is not second in importance to any other. Indeed, there are cases wherein this constitutes the leading indication—I mean *mental medication*. Some may prefer and use the terms magnetism, biology, or psychology. No matter; if we *act* correctly, the result will be desirable, by whatever name we designate the influence. There are hundreds of the patients whose minds are as torpid as their bodies. Their bodies feel weak, dull, inactive, lifeless, despondent, unable to stir, almost unwilling to move or be moved, and their minds sympathize with their bodies. They want energizing in the whole mentality. They need the inspiration of hope; the confidence of faith; the exhilaration of expectation. They must be made to understand they can be cured, and will be cured, and then the cure is half accomplished.

Herein lies the great secret, "the wonderful discovery," of certain specialists who cure displacements at a single visit. They perform whatever manipulation may be necessary (and sometimes manipulate *for effect*, when nothing of the kind is necessary), make the patient believe they have done something astonishing; something which nobody but themselves ever did or can know any thing about; convince her that she is replaced, and can not get out of place again if she tries; declare to her that she can *now* walk successfully and safely; in fine, play upon her imagination with a little innocent humbuggery, and forthwith she *is* better, can and does walk and exercise, and soon gets well!

When the uterus protrudes externally, the only peculiarity of treatment relates to the manipulations calculated to effect its reduction within the vulva. If inflamed or very irritable, it may be necessary to employ warm hip-baths or fomentations to allay the morbid tenderness, after which it may be gradually and gently reposited. In most cases, when the uterus protrudes toward the latter end of pregnancy, or during labor, it may be easily replaced; and in a few such cases reduction has occurred spontaneously soon after the accession of labor pains.

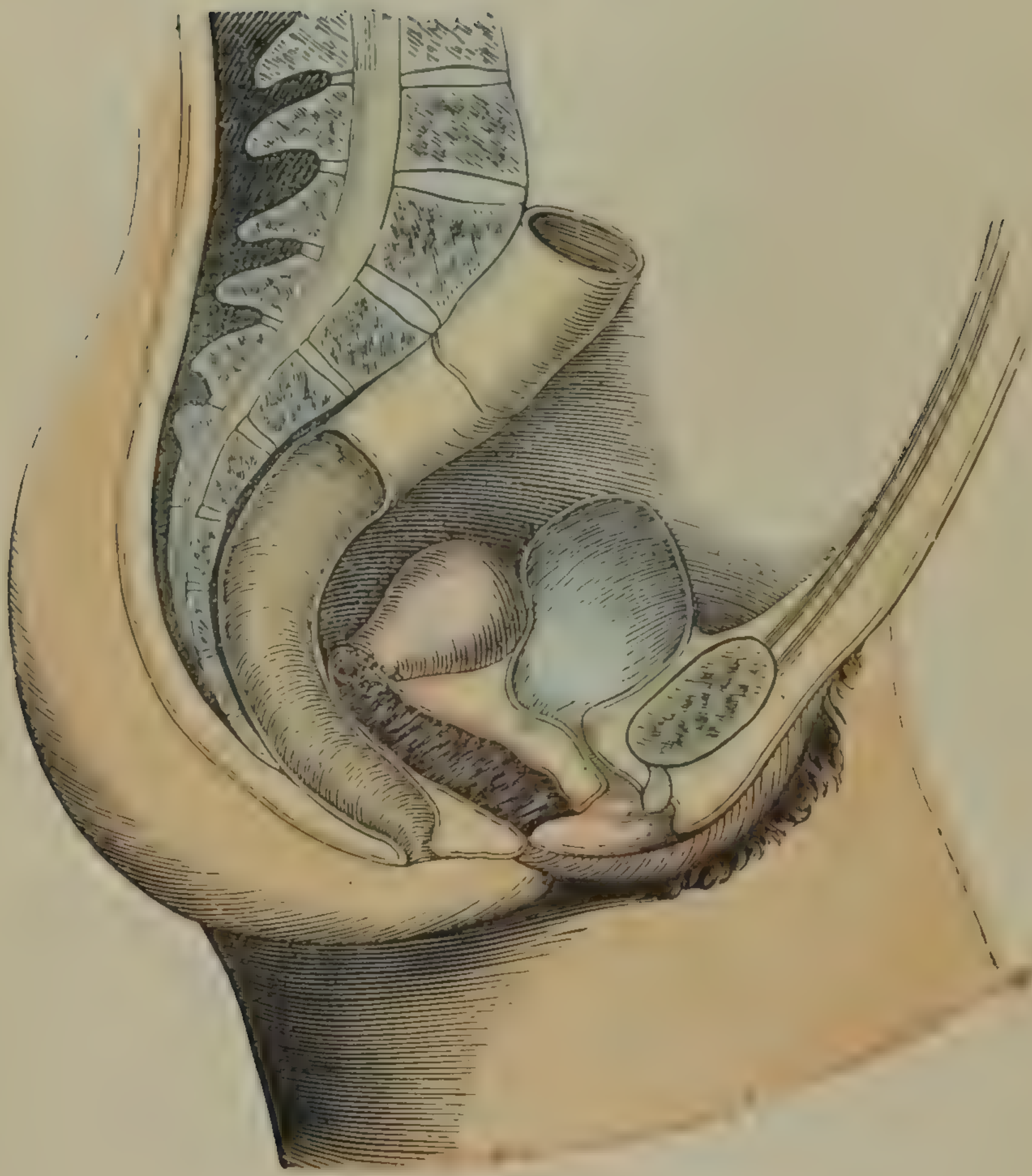
Fig. 36 represents the condition in which the uterus is most frequently found in cases of protrusion at or near the commencement of labor. The cut does not represent a complete, but *partial* extrusion of the organ externally.

FIG. 36.



PROTRUSION DURING PREGNANCY.

FIG. 37.



ANTEVERSION, FIRST DEGREE.

CHAPTER IV.

ANTEVERSIONS OF THE UTERUS.

Description.—In anteversion the uterus occupies a transverse position in the pelvic cavity, the fundus lying toward the symphysis pubis, and the os uteri directed backward toward the rectum. It is the least frequent of uterine malpositions, and is probably oftener met with in unimpregnated than in pregnant females. Indeed, M. Boulard, from extensive examinations, has come to the conclusion that "anteflexion of the uterus is a normal condition, prior to pregnancy." *Anteflexion* is often used synonymously with anteversion, but technically it applies to that condition of anteversion in which the cervix uteri is flexed or doubled upon its fundus. During pregnancy the fundus of the uterus frequently tips forward, so as to press inconveniently against the bladder—a condition which is understood by the term *anterior obliquity*.

Varieties.—It is sufficient for practical purposes to distinguish two degrees of anteversion proper, to which we must add anteflexion, making three varieties in all. In the *first* the body of the uterus presses but moderately on the neck of the bladder, and its cervix rests against, but does not appreciably press upon, the rectum. In the

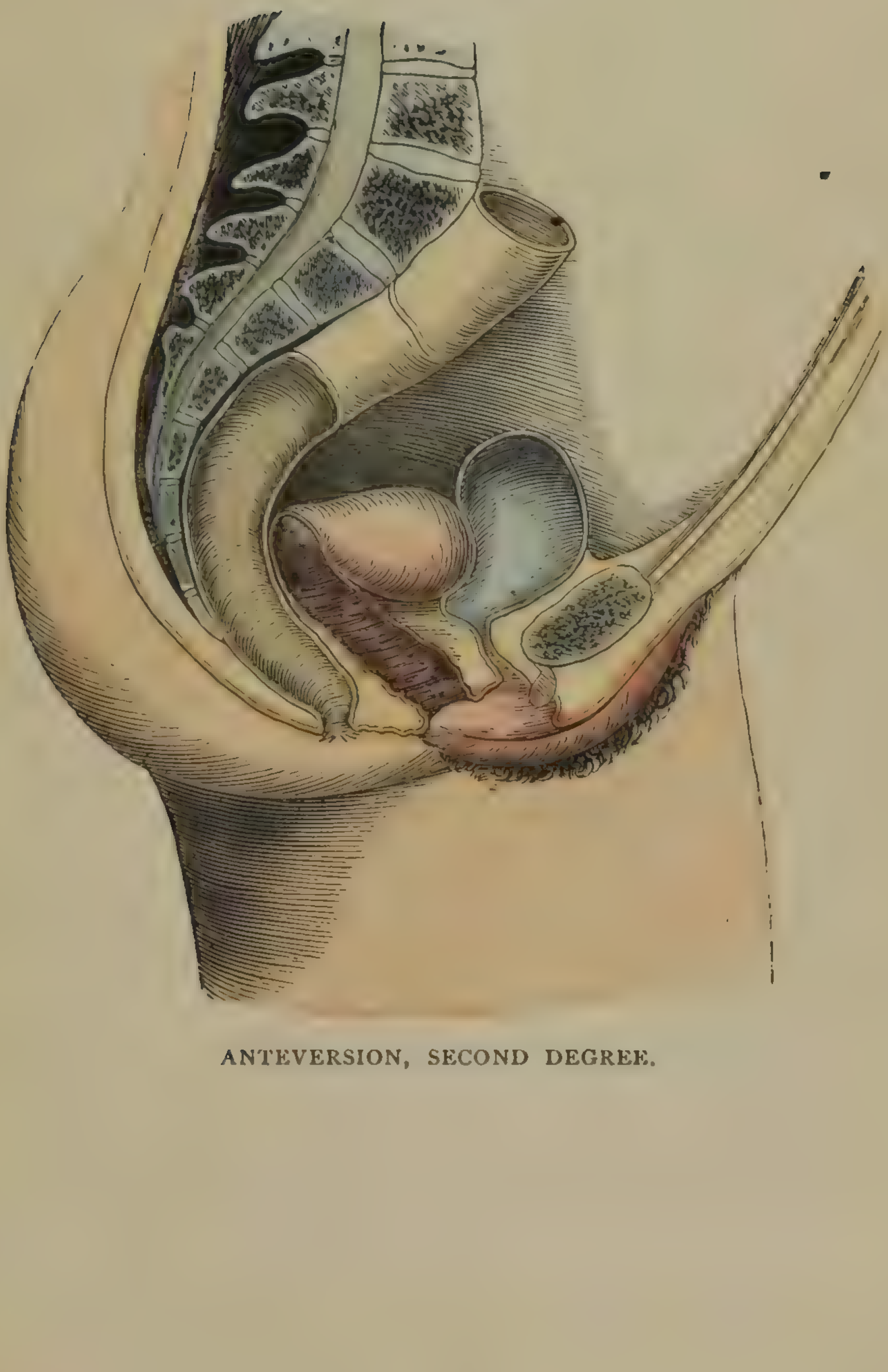
second variety or degree the fundus lies lower down in the vagina, and the pressure upon both the bladder and rectum is much more severe. In the first variety the fundus is above the level of a horizontal line drawn across the pelvis, and the os uteri below (Fig. 37), while in the second variety that condition is reversed—the fundus is below, and the os uteri above (Fig. 38). In the *third* variety the pressure upon the bladder and rectum is much less, but the cervix is flexed at a sharp angle with the body of the organ (Fig. 39).

Symptoms.—These are mainly such as are indicative of mechanical derangement, as more or less difficulty in passing urine, and on going to stool; these symptoms, however, are seldom very severe. Retention of urine may occur in extreme and rare cases, and the same of constipation. Sense of weight in the lower part of the abdomen, frequent desire to make water, pain in the hypogastrium and in the perineum, and a feeling of dragging from the loins, are the usual prominent symptoms, all of which are aggravated by much walking or long standing.

In the second degree of displacement all these symptoms are much more serious; standing is much more troublesome, and walking is very difficult. Leucorrhœa and mismenstruation are usually present.

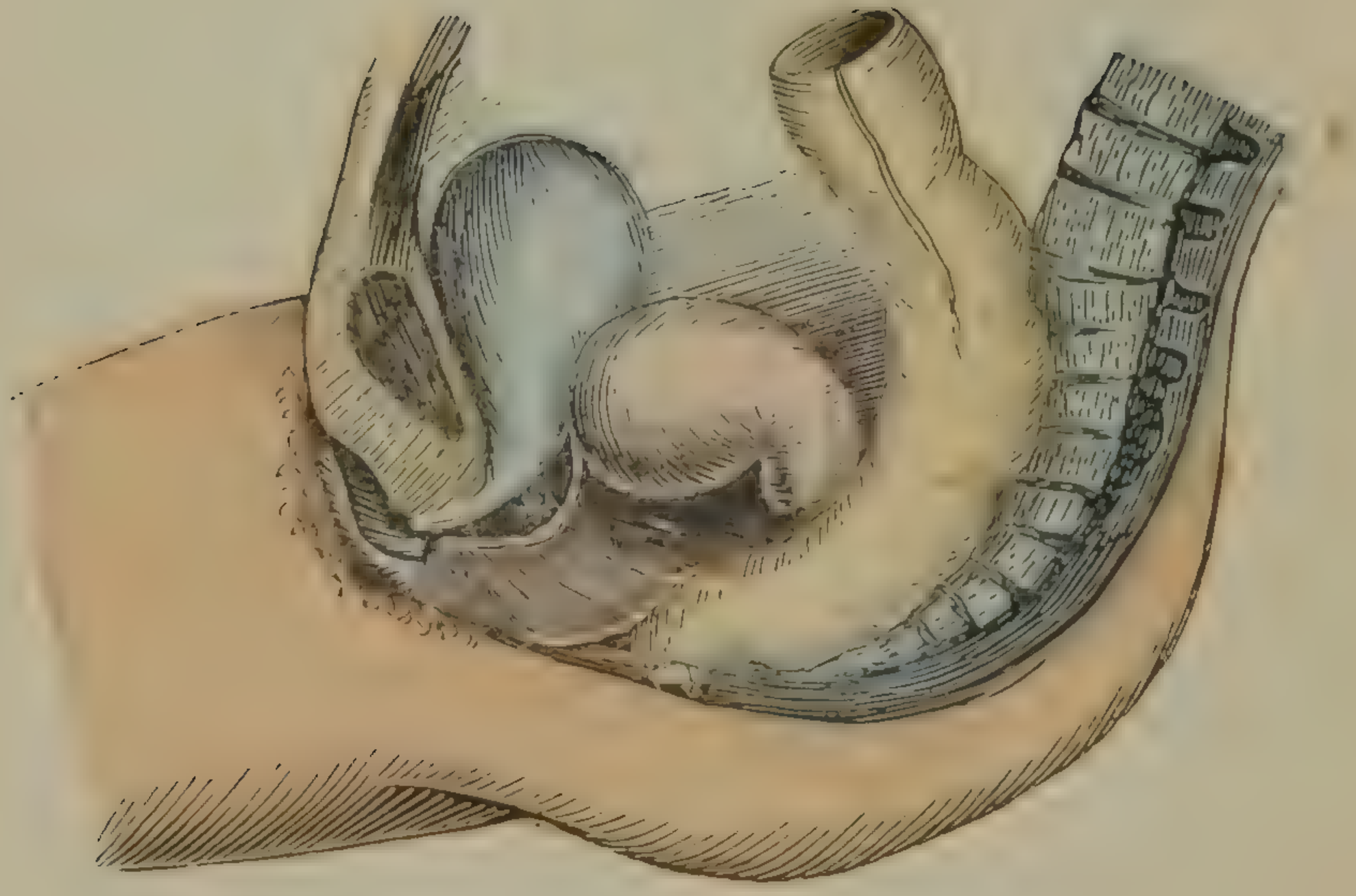
An examination internally will enable us to determine the exact degree or variety of anteversion. The uterus will be felt as a dense body, blocking up the pelvis; the fundus, of course, anteriorly, and the cervix posteriorly. Dr. Churchill remarks: "If a sound be introduced into the bladder, it will impinge upon the displaced fundus, and this has given rise to a suspicion of stone in the

FIG. 38.



ANTEVERSION, SECOND DEGREE.

FIG. 39.



ANTEFLEXION.

bladder. There is, however, no sound resulting from the contact, nor is the touch like that of a stone."

Anteflexion will be easily distinguished by the sharp angle, and the concave surface inferiorly. In that form of anteversion or anteflexion called *anterior obliquity*, occurring in the latter months of pregnancy, the os uteri is situated near the promontory of the sacrum, and is not unfrequently very difficult to find—a circumstance which has in some cases induced the suspicion of imperforate uterus.

Diagnosis.—Anteversion may be distinguished from *retroversion* by the greater bulk of the pelvic tumor—the fundus—being anteriorly, and the lesser bulk—the cervix—posteriorly; from *pelvic tumors*, by the presence of the os uteri, and by the cervix and body of the womb being traced from it continuously across the pelvis; and from *ovarian tumor*, by its sensibility, its form, and the presence of the os uteri.

The importance of correct diagnosis may be inferred from the following chapter of medical literature: "Leupet confessed," says Churchill, "that the only case of anteversion he ever met with he mistook for a stone in the bladder, and the mistake was corrected (?) only by a *post-mortem* examination, the woman having *died after the operation for stone!*

Causes.—Churchill says: "For the production of anteversion it is necessary that the fundus uteri should be rendered somewhat heavier than usual, compared with the inferior portion of the organ, or else that a decided tilting forward should be occasioned by a force external to the uterus. If the bladder be empty, and a sudden expulsive force exerted at the same time, the uterus may

be tilted over anteriorly, especially if the ligaments have been relaxed by previous pregnancies. In accordance with this explanation we shall find that it has occurred in the first two or three months of pregnancy, but not after the uterus has increased much in size. In some cases it has been discovered that the first displacing power resulted from an accumulation of faeces in the rectum, which pressed forward the fundus uteri."

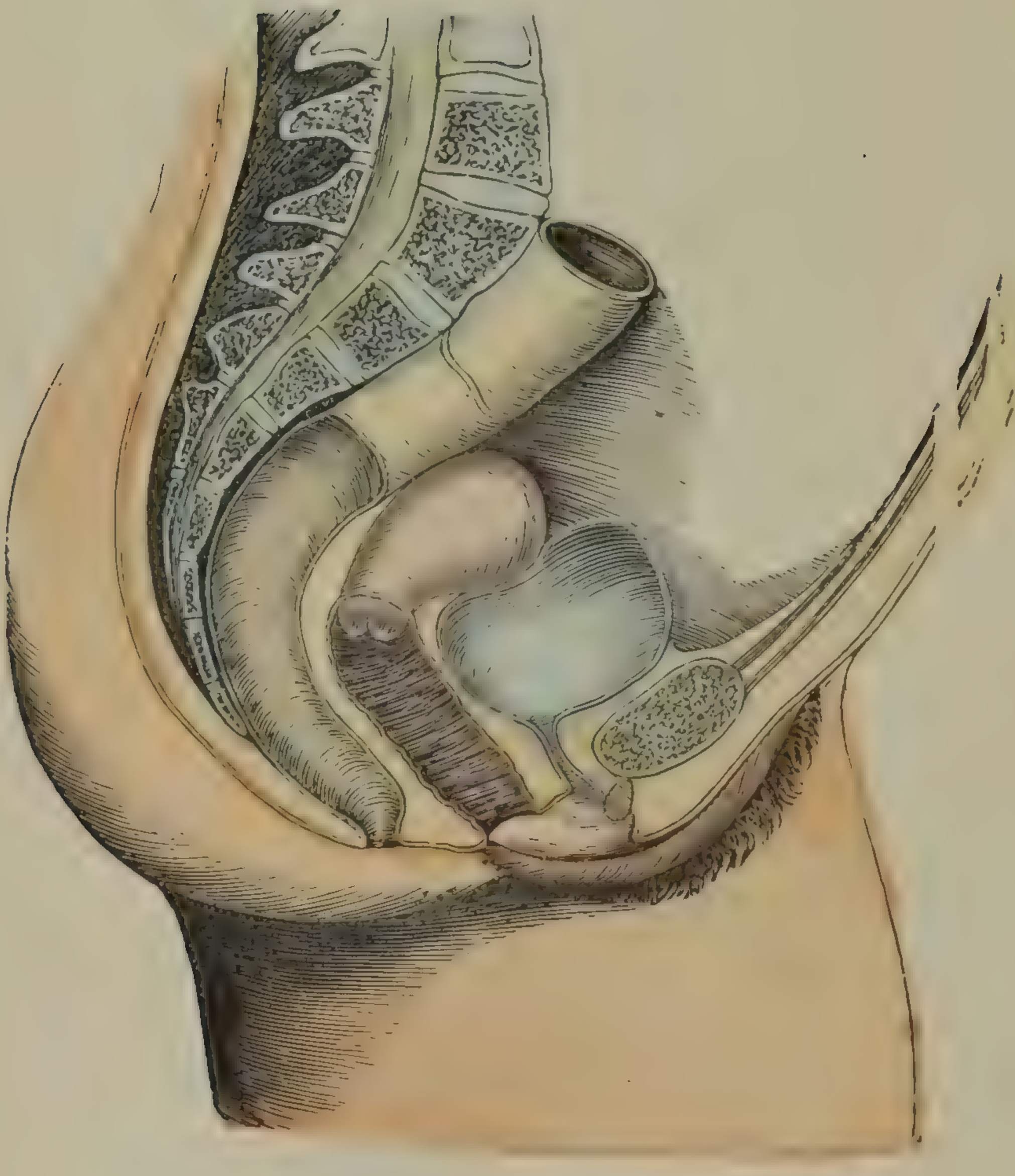
The relative position of the uterus in the pelvic cavity must necessarily render this accident extremely rare, and it can hardly occur at all except when the uterus is about the natural size, and situated within the cavity of the pelvis. The frequent distention of the bladder, which, when extreme, favors the production of retroversion, is an obstacle to the falling of the uterus anteriorly.

To the causes usually designated by authors, we must add weakness and relaxation of the abdominal muscles; indeed, this may be regarded as among the most frequent and special causes of this form of uterine displacement.

Treatment.—A majority of all the cases of anteversion will recover without internal treatment, provided the general health and the local debility are attended to on the plan recommended for prolapsus. It will be noticed that distention of the bladder, and efforts to evacuate the bowels, which tend to aggravate the malposition in cases of retroversion, operate toward a reposition of the uterus in cases of anteversion. For these reasons, when we are obliged to resort to manual or instrumental assistance, the reposition is usually effected with much less difficulty than in cases of retroversion.

We can generally reach the cervix and pull it down

FIG. 40.



ANTERIOR OBLIQUELY.

with the forefinger of one hand, while with the other hand we can gently elevate the fundus by pressing externally from the symphysis upward. In severe cases, that is, when the fundus is lower down, it may be necessary to raise it to its normal position with the finger, lengthened, if need be, an inch or more by an India-rubber or other elastic tube fitted to the end of it, and stuffed with cotton or lint to the requisite degree of firmness. In very bad cases the reposition may be facilitated by placing the patient in the position recommended by Professor Godfrey, of Rennes. "He had his patients placed on the side of the bed, with their heads and hands on the floor, with only the anterior parts of the thighs and legs resting on the bed." In this position, he says, "the intestines are drawn toward the diaphragm, the pelvis is consequently emptied, and the uterus, being so pressed upon, resumes its normal situation."

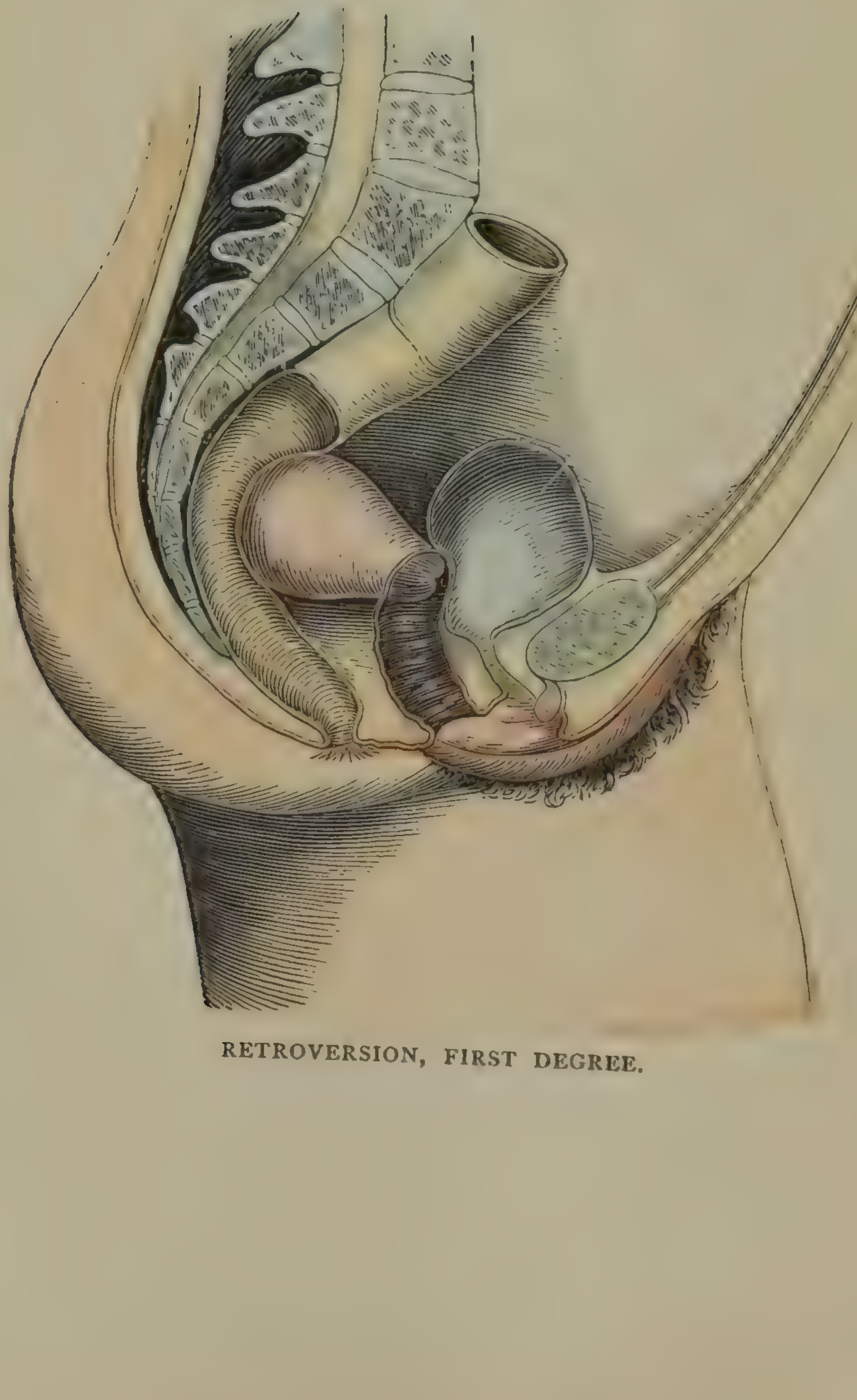
I have never yet met with a case requiring this *extreme* measure; but as the theory is correct it ought to be kept in view for any emergency which might by any possibility render it necessary.

Anteflexion can in almost all cases be remedied for the time by hooking down the cervix, as before directed, and pushing up the fundus at the same time, with the other hand applied to the abdomen externally. This hand should press firmly—yet not so as to cause pain—just above the symphysis pubis, or the points of the fingers may be pushed upward along the recti muscles.

Of course the anteverted uterus will be continually liable to redisplacement so long as the system generally, and the abdominal muscles particularly, remain in a re-

laxed and debilitated, or torpid and inactive condition. The cure, therefore, must be conducted on precisely the same general plan I have detailed in the preceding chapter, the only special point in practice being the mode of reposition.

FIG. 41.



RETROVERSION, FIRST DEGREE.

CHAPTER III.

RETROVERSIONS OF THE UTERUS.

DESCRIPTION.—Retroversion of the uterus is exactly the opposite of anteversion. The terms *retroversion* and *retroflexion* are employed indiscriminately by many authors; but technically the former is a malposition of the uterus, with the fundus thrown backward and the cervix forward, while the latter is the bending or doubling back of the body of the organ on its neck. Churchill observes: "It can be easily understood that if the perpendicularity of the uterus be destroyed, either by an alteration in the relative situation of the pelvis, or by the extraordinary distention of the bladder; and if, at the same time, the bulk and weight of the fundus uteri, compared with that of the cervix, be increased, a very slight forcing downward will tilt over the fundus alone, or the entire uterus, so that if the pelvis be of the full size, the fundus will be depressed below the promontory of the sacrum. This displacement is called *retroflexion*, or *retroversion* of the uterus."

Varieties.—We may distinguish five conditions or degrees of retroverted uterus, or, rather, three of retroversion proper, as the fundus is above (Fig. 41) or below

(Fig. 42) the horizontal position, and one of retroflexion (Fig. 43). There is also a modified variety occurring in pregnancy, the uterus being enlarged to about double its normal size, and lying across the pelvis with its fundus below the promontory of the sacrum, and pressing hard against the rectum (Fig. 44).

In the *first variety* the uterus descends but slightly, its fundus presses but moderately upon the bowel, and its cervix is directed forward toward the neck of the bladder, which is more or less irritated by its contact.

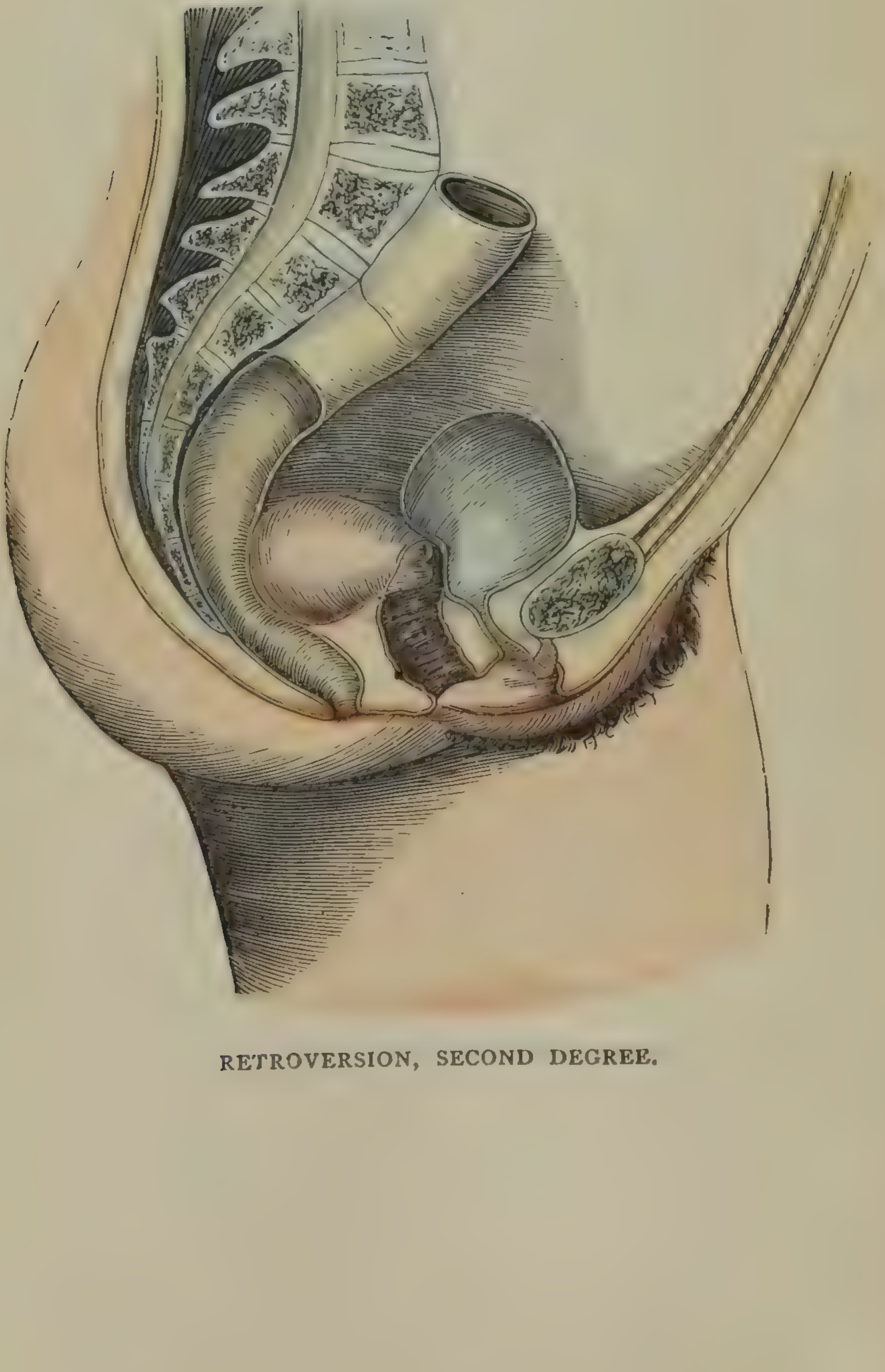
In the *second variety* the uterus descends below the middle of the vagina, pressing still more severely on the rectum behind, and the neck of the bladder, just above the symphysis pubis.

In the *third variety* the uterus lies low in the vagina, and, instead of lying horizontally across the pelvic cavity, it is incurvated or doubled upon itself; that is, the fundus occupies the lowest position of displacement, the body presents a concave surface externally and inferiorly, and the os uteri is found at or near the neck of the bladder.

In the *fourth variety* the uterus, enlarged to something like double its normal size, lying horizontally across the pelvis, and its malposition constantly becoming more and more troublesome and difficult of reduction as pregnancy advances. Fig. 45 represents the manner in which a distended bladder operates in inducing retroversion; and Fig. 46 a malposition, called retroflexion of the cervix.

Symptoms.—These will vary with the particular kind or degree of displacement, and almost always grow more and more severe and troublesome the longer the displacement exists. The menstruation is more affected and

FIG. 42.



RETROVERSION, SECOND DEGREE.

more irregular than in anteversion or prolapsus, and all the troublesome symptoms are aggravated, often intensely so, at each menstrual period. Dr. Churchill has well presented the symptomatology of this form of misposition: "The symptoms do not appear to differ much, whether the unimpregnated uterus be retroverted or retroflected. The function of menstruation is more or less deranged, and there are various hysterical and dyspeptic symptoms resulting therefrom. The patient complains of an aching pain in the back and loins, aggravated by walking or making any effort; and there is, finally, profuse leucorrhœa. The bowels are commonly confined, and there is a difficulty in voiding the fæces, and a feeling as if it were impeded by some obstacle. Sometimes the bowel is irritated, and mucous or fibrinous shreds are discharged. The feeling of pressure about the perineum, and bearing down, increases the longer the disease continues, and in some cases the patient is confined to the horizontal position. There is rarely, if ever, any difficulty in voiding urine."

The absence of any considerable difficulty in voiding the urine, however, it should be remembered, applies to *retroflexion*, and not to retroversion; for if the organ lies transversely across the pelvis, and is not doubled upon itself, the cervix or mouth will often press upon the neck of the bladder, so as to occasion extreme difficulty, and sometimes a total retention of urine, rendering catheterism or replacement immediately indispensable.

In early pregnancy, also, a retroverted uterus may occasion dysuria; and if the retention of urine have continued for some time, the distended bladder may be felt rising above the brim of the pelvis. All the cases of this

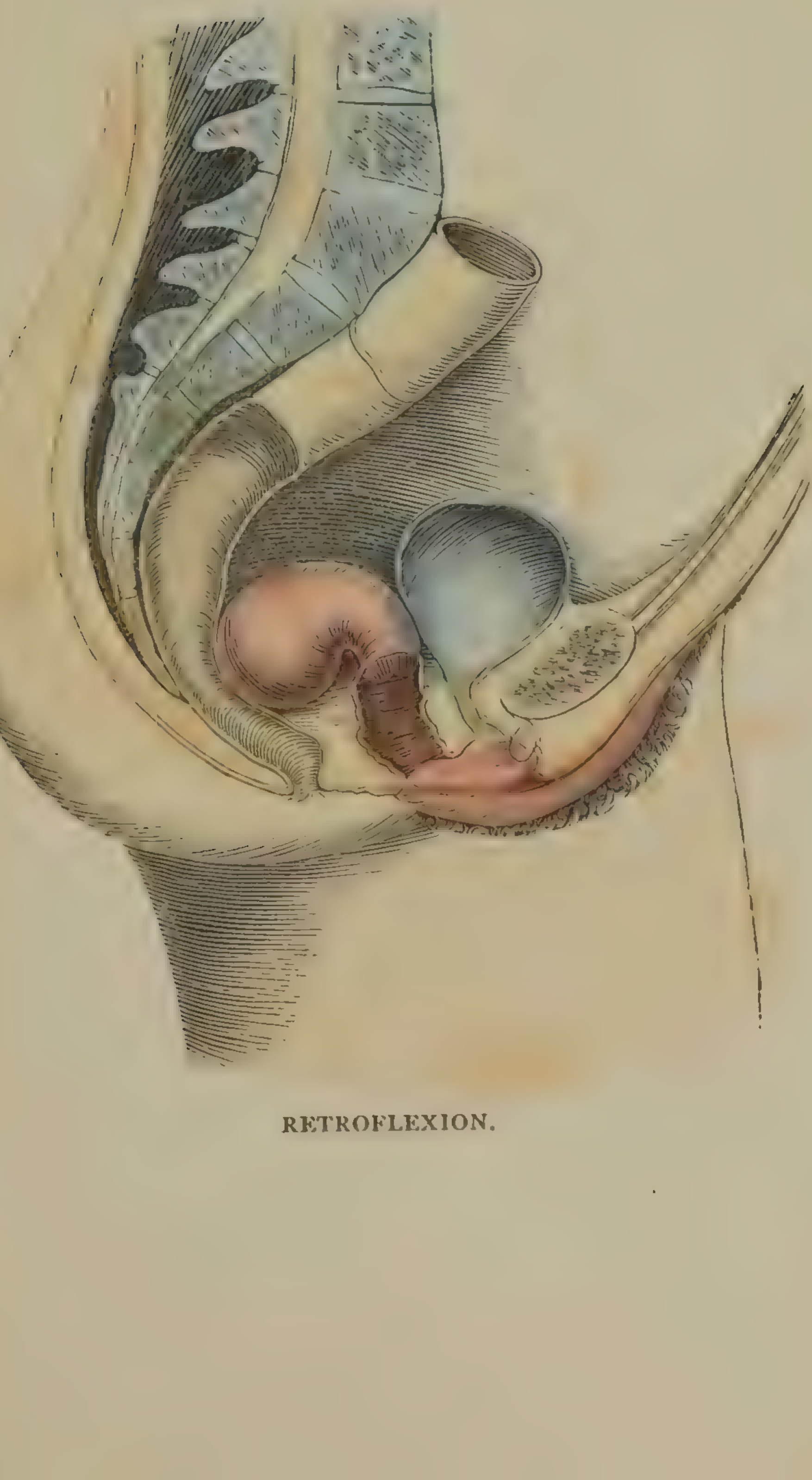
kind seen by Dr. Hunter "occurred about the third month, sooner or later, and they all brought on a difficulty, and gradually a suppression, first of urine, and then of stools likewise."

The precise condition of the uterus must, however, be ascertained by the touch. On examination the finger comes in contact with a tumor at the *posterior* part of the vagina, which a closer examination will determine to be the fundus; and by tracing the tumor anteriorly, the os uteri will be found in front. In retroflexion proper the cervix will be nearly in its natural position, but bent angularly from the body of the uterus. The speculum is of no use in the diagnosis, except in determining as to ulcerations, etc., which may exist at or near the os uteri. The angle of flexion—the incurvation—may be more or less acute in some cases, so much so as to prevent entirely the passage of a sound or bougie.

In some cases the most obstinate constipation results from the pressure of the deflected organ against the rectum. I have had patients who had been for ten years unable to evacuate the bowels in a single instance without purgatives or injections.

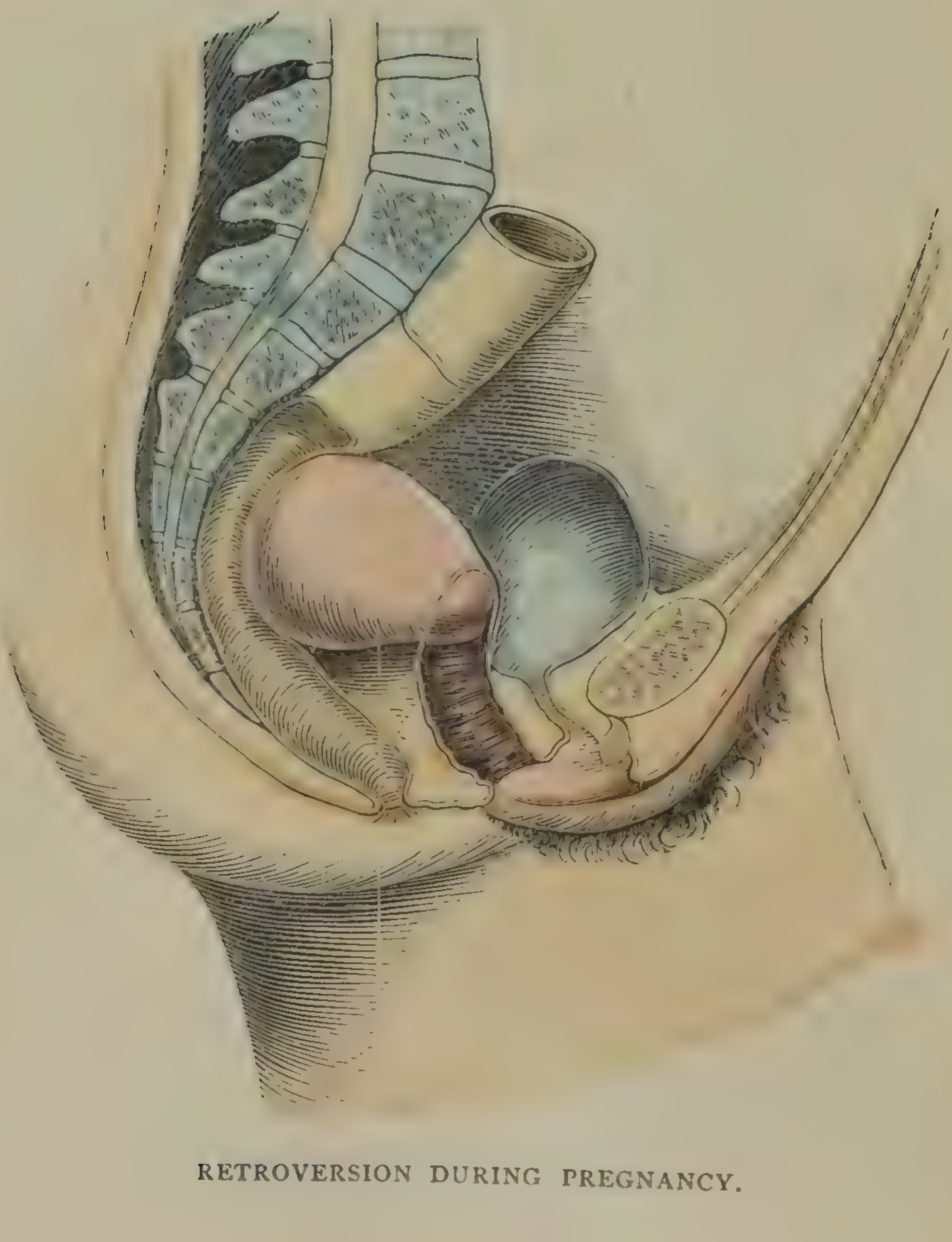
Of retroversion of the impregnated uterus Churchill remarks: "In this displacement the cervix will impinge upon the urethra somewhere about its junction with the bladder, the posterior lip of the os uteri will become inferior, and the uterus will occupy the pelvis horizontally in its antero-posterior direction. The position of the vagina is peculiar; the posterior wall is depressed, in consequence of the fundus falling between it and the rectum, while the projection of the cervix carries forward the anterior wall; its direction, therefore, instead of

FIG. 43.



RETROFLEXION.

FIG. 44.



RETROVERSION DURING PREGNANCY.

being from before, backward toward the sacrum, is really upward and forward, toward the symphysis pubis.

Neuralgia, especially of the lower extremities, is a frequent attendant of retroversion or retroflexion.

When the suppressions once occur, the accumulations of fœces and urine are continually aggravating the difficulty, as the loaded bladder and intestines are constantly pressing the uterus downward.

The patient then complains of a great weight and fullness in the pelvis, a dragging from the loins, and a ceaseless and most distressing effort at bearing down, resembling labor pains, and exciting just apprehensions of abortion.

In some cases severe constitutional suffering results; fever supervenes, attended with violent pain and restlessness; and the peristaltic action of the intestines is sometimes inverted, so that a vomiting of stercoraceous matter takes place. If the distention of the bladder be not relieved in due time, its coats may rupture, of course inducing a fatal result.

Dr. Blundell correctly remarks: "In the retroversion of pregnancy there is not always, nor, I think, generally, a *complete* retention of urine; for often, when the uterus is retroverted, the retention is partial." Often the urine is irregularly and sparingly voided, occasionally it passes involuntarily, and sometimes with a continual dripping. But this frequent urination does not always keep the bladder free, for it may accumulate faster than it drips away, until the bladder may be distended with several pints, or even quarts, when œdema of the lower limbs will be very apt to occur.

The practitioner should be careful and not mistake in

this case *gestation* for *ascites*, nor ovarian dropsy. Whenever there is doubt in the diagnosis, the catheter should be employed to keep the bladder free.

Difficulty may be experienced in the attempt to introduce the catheter; but if the point of the instrument be kept close to the symphysis pubis, and pressed very gently forward, it will be made to enter the urethra.

It is important, too, in cases of retroversion, to notice the direction of the vaginal canal, which is forward toward the pubis, instead of backward toward the sacrum. The finger can seldom be pressed beyond the inferior surface of the uterus.

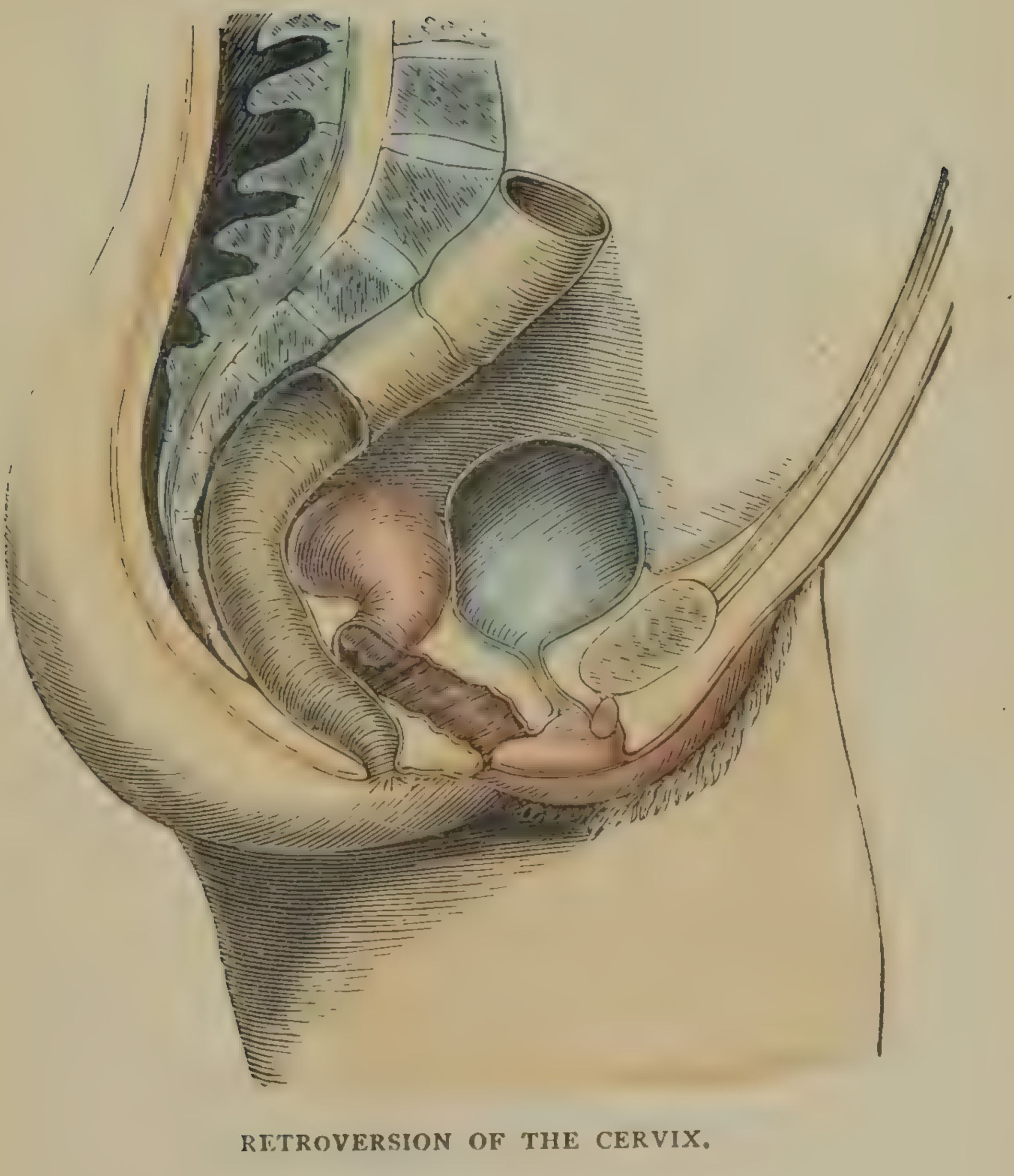
Diagnosis.—This form of displacement may be certainly recognized by the following symptoms taken together: Sense of weight or bearing down in the pelvis; difficulty of defecation; the tumor felt on the posterior side of the vagina, which can be traced along to the cervix. The bougie, which passes readily when directed along the anterior side of the vagina, will be arrested when directed posteriorly. This test will also distinguish retroversion or retroflexion from *tumors in the posterior part of the vagina*, *ovarian cysts*, etc. The retroverted uterus will also, except in a few cases, be attended with an enlargement of the organ, be movable, that is, susceptible of being raised more or less toward its normal position, which is not the case with the other tumors.

In some cases the uterus is so firmly impacted in the bottom of the sacrum as to be dislodged with great difficulty. I have had two cases of this kind within the last year, which proved at first irreducible, on account of the enlarged and inflammatory state of the organ.

FIG. 45.

RETROVERSION FROM DISTENDED BLADDER.

FIG. 46.



RETROVERSION OF THE CERVIX.

Causes.—Some authors consider a large pelvis, and others too great projection of the sacral promontory, as among the causes of retroversion. I doubt seriously if such causes, except in cases of absolute and extreme deformity, ever had any influence in inducing it. Constipated bowels, I think, in a vast majority of cases, is the most efficient predisposing cause. Irregular menstruation, either in the form of dysmenorrhœa or menorrhagia, assists the predisposition, as does leucorrhœa, or diarrhœa, or any exhausting discharge or long-continued irritation. An over-distended bladder is among the most frequent exciting causes. An enlarged ovary or other tumor has in rare instances caused the displacement. Violent exertion, lifting, straining, jumping, falling, excessive vomiting, straining at stool, etc., are not unfrequently exciting causes.

Treatment.—Dr. Davis, who had great experience as an obstetrician, and who practiced extensively in female diseases, says: "Cases of chronic deflexions are to be considered as *totally incurable* by any efforts of art exclusively without the aid of nature, as exerted during the changes and developments referred to as special attributes of pregnancy."

Notwithstanding this unfavorable prognosis, we know, as a practical fact, that cures do often result, and that judicious manipulations can generally, in a longer or shorter time, effect its replacement; and then, if nature is properly aided, the deflexion will not again occur.

There is no end to the mechanical and surgical contrivances which have been recommended for, and experimented with, in retroversions of the uterus; and in isolated cases each may have been successful.

Denman proposed emptying the bladder and bowels, and keeping the patient for hours on her knees and elbows, so as to invert the pelvis. Others recommend, in difficult cases, drawing down the cervix with hooked forceps; others introducing the *whole hand* into the rectum to elevate the fundus; M. Halpin advised the introduction of a bladder into the vagina, and its inflation with a stomach-pump, and in one case he is reported to have succeeded in this way; Dugès and Simpson recommend the employment of the uterine sound, etc.

An instrument invented by Dr. H. Bond, of Philadelphia, is regarded by some as the best contrivance extant. It consists of a *vaginal* and an *anal* blade, fastened together with a clamp-headed screw and nut. The anal blade is first introduced into the rectum, and then the vaginal blade into the vagina; the tip of this blade (both blades are tipped with ivory) can be placed higher or lower, and when properly adjusted, if the anal blade be carefully pushed upward, the vaginal blade will at the same time elevate the fundus of the uterus.

M. Valleix has lately proposed "redressing" the uterus, an operation consisting in the introduction of the sound, and then rotating the instrument so as to describe an arc of a circle, by which management it is *hoped* the organ will be worked into its normal position; after which it is to be kept in position for hours together by an instrument known as Professor Simpson's *stemmed supporter*. And M. Seyfert has still more recently advanced the novel and somewhat startling proposition of *inducing retroversion to cure prolapsus!*

I am opposed to each and all of these methods as either awkward, unnecessary, dangerous, or absolutely perni-

cious. In many cases where the displacement is recent, and the fundus uteri is still above the transverse level of the pelvis, a reposition will take place, on merely drawing off the urine and emptying the bowels; and if due care is taken to keep the bowels free, and to guard against any considerable distention of the bladder, at the same time invigorating the abdominal muscles by appropriate exercises and manipulations, a cure will soon be effected.

In severe cases it is necessary to effect the reposition in some other way. In those cases where the fundus lies very low in the vagina and presses so hard upon the rectum as to obstruct the evacuation of faeces, it may be pushed upward with one finger introduced into the rectum. But I prefer in all cases—unless there be some mechanical or structural impediment in the vaginal passage—the operation *per vaginam*. If the finger is not long enough to raise the fundus sufficiently, the particular condition, situation, and mobility of the organ can be ascertained, and then the finger can be lengthened by a metallic, India-rubber, or other attachment to any degree desired. It is very rare that an inch or an inch and a half will not be amply sufficient.

All the efforts to replace or push up the organ, should, of course, be made with great care and gentleness. In some cases we will not succeed at the first effort in changing its position but a mere trifle. But by repeating the efforts frequently, at the same time kneading, rubbing, or otherwise energizing the surrounding muscles, we will effect a complete reposition and cure eventually. Sometimes the fundus, when descended very low, may be readily pushed up above the promontory

of the sacrum; the patient will then experience immediate and remarkable relief, and frequently be enabled to walk off with little inconvenience, when, a few minutes before, she could not walk across the room without great difficulty.

Sometimes there is such a degree of morbid sensibility, tenderness, irritation, or inflammation in the uterus itself, or in the vagina, or both, that it is essential to allay or reduce this condition before any attempt is made at replacement; and occasionally such a degree of swelling or congestion exists as will render reposition impossible until this is partially relieved.

The plan of general, local, surgical, dietetic, bathing, or other medication, does not differ in cases of retroversion from that applicable to the other forms of displacement. All that is peculiar is the merely mechanical part of the treatment—the method of replacement. We usually find, however, a greater degree of soreness or tenderness about the pelvis in retroversion, hence our manipulations should be correspondingly gentle; and when the whole muscular system is very weak, the patient should not be urged to walk until some degree of contractility has been restored, and the uterus is made to approximate, to some degree at least, its normal position.

When the vaginal relaxation is so great (as often happens when the fundus lies down, as it were, on the perineum, completely occupying the recto-vaginal *cul-de-sac*) that the organ relapses immediately after being pushed upward, the fundus should be raised as high as may be with the metallic tube, and the sponge support introduced as in the case of prolapsus, to be worn *only*

while the muscles are being manipulated, or the patient is exercising by walking, or by whatever gymnastic or kinesipathic or motorpathic exercises may be deemed advisable. The object of this management will be readily apprehended by the intelligent physiologist, viz., to exercise all the muscular system as much as possible while the organs are all as nearly as possible in their normal situations, and to take off all artificial pressure or support whenever the patient is quiet. Thus we procure the benefits of motion or action, without aggravating the existing relaxation or distention.

It is seldom strictly necessary to pull down the cervix uteri in cases of retroversion, yet there is certainly an advantage in so doing, whenever it can be accomplished with facility. In most cases the proper elevation of the fundus will effectually reposit the whole organ; but whenever practicable to hook it down with the finger alone, I would do so.

In the *retroflected* variety (or *retort uterus*, as Professor Hodge terms it, because the organ is bent to the shape of a retort), the management is not essentially different from that already described. There will be less trouble of the rectum and bladder, nor will distention of either of those organs aggravate the sufferings of the patient, as in the second variety, because the whole uterus occupies a more central position in the pelvis. The finger, with the appendage already described, is almost always sufficient to effect its reposition.

The most immediately dangerous variety of deflexion is that occurring during pregnancy; and whenever a sudden retention or suppression of urine happens with a pregnant female, especially if accompanied with diffi-

culty in evacuating the bowels, no time should be lost in ascertaining exactly the nature of the disorder.

The following remarks of Dr. Meigs (*Treatise on Obstetrics*) are practical and to the point: "My experience teaches me that most of the instances of retroversion are attributable to a distended bladder, whether after parturition or not. The modest delicacy of women often compels them to resist the most urgent desire to pass off the urine. A female riding in a carriage, or placed in such a situation that she can not withdraw from the company without being suspected of a desire to urinate, will allow the bladder to fill almost to bursting; and if she be pregnant about three months, she will scarcely fail to have retroversion of the womb. When at last she obtains an opportunity to evacuate the bladder, she finds she has a partial or total suppression of urine. * * *

"Having succeeded in drawing off the water, the patient, if necessary, should have a copious enema, in order to unload the rectum, which, if replete with fecal matters, might offer considerable obstacles to the success of our attempt. In the next place, we ought to endeavor to raise the fundus—the patient lying on her left side—by pressing the bas-fond of the womb, which can be felt through the hinder surface of the vagina upward, with the fingers, so as to lift the whole mass in a direction parallel with the axis of the brim. The cervix uteri is tied to the more anterior parts of the pelvis by the vagina and the vagino-vesical septum, so that if we carry the mass considerably upward, it must be by tilting the fundus in that direction. Attempts of this kind will not always succeed. Where they fail, a finger may be passed into the rectum—the forefinger of the left hand

if the woman is on her left side, and of the right hand if she be upon her back. Before the finger has passed very far, it meets with the fundus uteri, which presses upon the canal of the intestine; in this situation we have far more power to move the womb than when the effort is made only from the vagina. Pushing gently and steadily upward, we find the mass gradually to recede, until at length the fundus, liberated from its restraint, suddenly emerges, with a sort of jerk, from under the promontory, from which instant the woman is cured."

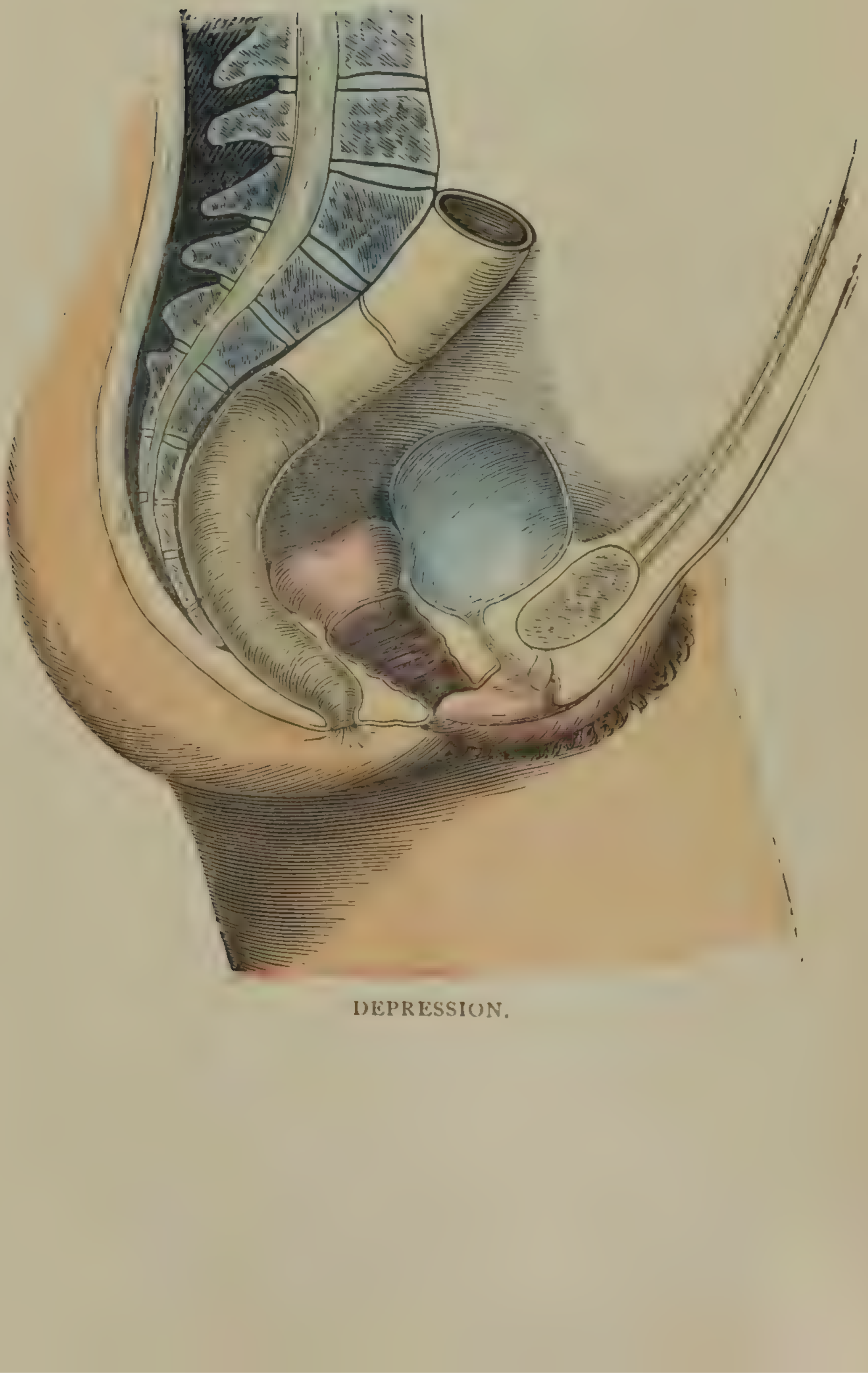
But, unfortunately, it sometimes happens that the gravid uterus remains in its retroverted condition, until pregnancy has so far advanced, and the organ is so firmly wedged in below the promontory of the sacrum, that reposition is utterly impracticable. It is sometimes also, in those cases, impossible to pass the catheter. If this can not be effected by pressing back the uterus sufficiently to liberate the urethra, we must either puncture the bladder or hazard its rupturing.

In these impracticable cases, which, fortunately, are so rare that few physicians ever meet with one, abortion is the only resource; although Callison has *suggested* the operation of gastrotomy to enable us to get at and replace the organ through the incision of the abdominal parieties. Purcell, Gardiner, and Cruikshank have recommended a division of the symphysis pubis, in order to make room for the reposition of the organ.

All of these expedients, however, are only to be named to be avoided. Perforating the uterus with a small trocar, so as to evacuate the liquor amnii, is a safer and more feasible operation, as it may either induce abortion, or so diminish the bulk of the uterus as

to render its replacement practicable. Abortion may also generally be promptly induced by a douche of warm water applied with moderate force to the organ, in connection with the suction-pump applied to the breasts.

FIG. 47.



DEPRESSION.

CHAPTER IV.

INVERSIONS OF THE UTERUS

DESCRIPTION—Inversion of the womb—*Renversement de la matrice*, of the French—differs from prolapsion in the fact that the organ is *turned inside out*, in addition to being depressed from its natural situation. The fundus, descending through the os uteri, forms a cavity, open toward the abdomen, lined by the peritoneum, and containing the ovaries and the Fallopian tubes. The lining membrane of the inner surface of the uterus forms, in inversion, its external covering. This displacement has been called *acute*, when occurring suddenly, as after delivery, and *chronic*, when it has been produced gradually, as after tumors, debility, etc.

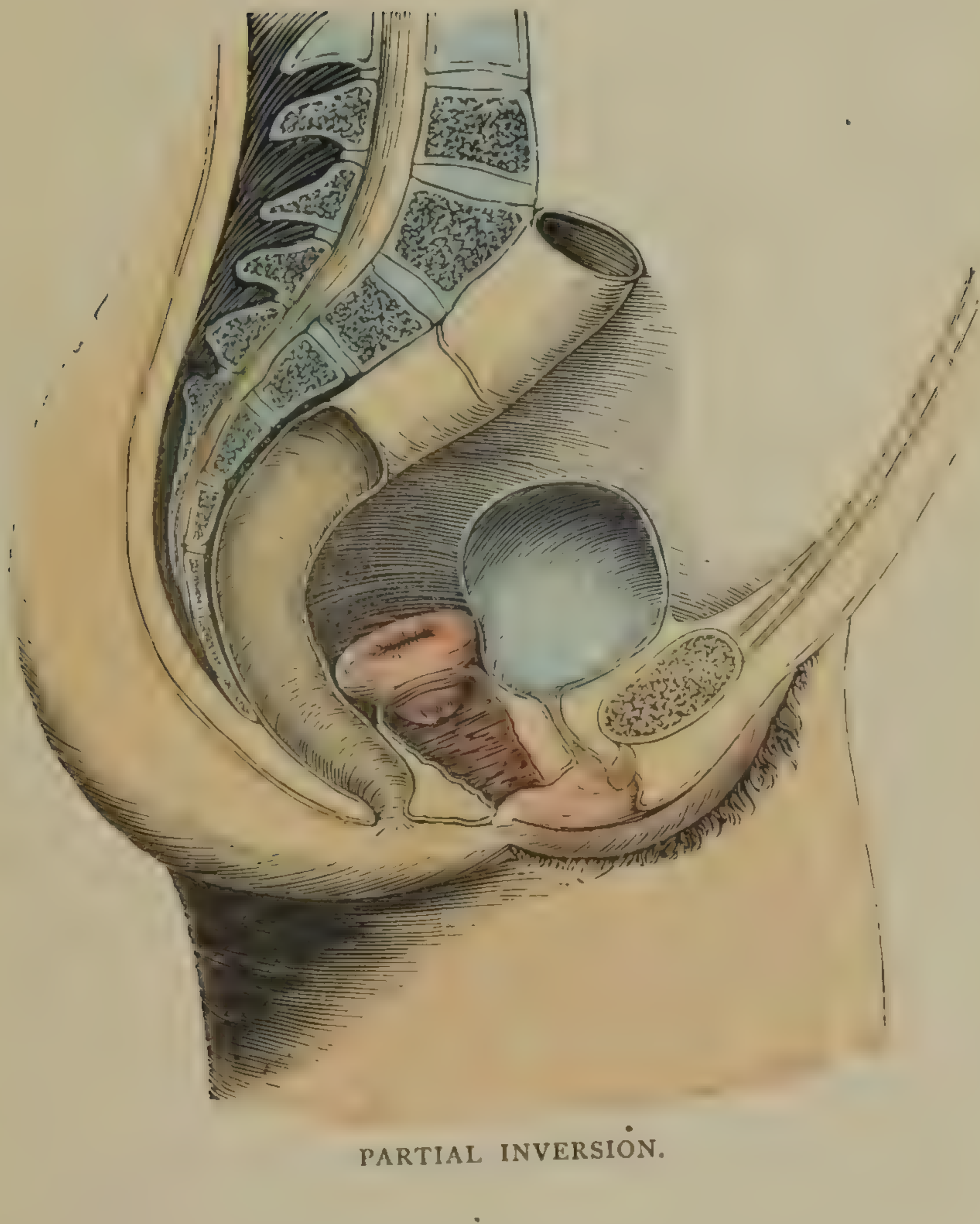
Varieties.—Authors have noticed three stages or degrees of inversion, which we may consider as varieties: 1. Depression. 2. Partial inversion. 3. Complete inversion. In the *first variety* the fundus of the uterus is merely depressed within its cavity, without, however, forming any tumor in the vagina (Fig. 47). In *partial inversion* the fundus descends in the vagina until a semi-spherical tumor is formed, closely invested by the os uteri (Fig. 48). In the *third variety* the uterus pro-

trudes beyond the vagina, which it completely fills. The os uteri is turned upward, or toward the abdomen, and the whole form of the tumor resembles that of the recently delivered uterus. The mouth of the womb, which is felt at the upper part of the tumor, is thickened circularly at its apex, and on examining the hypogastric region externally by the touch, nothing like the uterine organ is perceptible (Fig. 49). In this degree of inversion the vagina is inverted to some extent also.

Symptoms.—When inversion occurs immediately after delivery (Fig. 50), it is generally complete. It is followed by alarming symptoms, and sometimes terminates in death in a very short time. Flooding generally attends, and is frequently very alarming; there is a sudden sense of sinking and exhaustion; the countenance almost instantly becomes deadly pale, the pulse rapid and fluttering, the voice weak; and sometimes nausea and vomiting occur. There is usually great restlessness and agitation, which have sometimes been regarded as convulsions. Dr. Newman remarks: "When the uterus has become inverted, immediate hemorrhage takes place, which is quickly followed by faintness, and a sense of fullness in the vagina; and, in the greater number of instances, almost by immediate dissolution." Death, in these cases, does not result from loss of blood so much as from the shock experienced by the whole nervous system.

In less severe cases, or in the inversion in a less degree, the patient complains of great pain, a dragging sensation from the loins, occasional retention of urine, and sometimes severe floodings. Often there is a violent contraction of the uterus, causing the patient to suspect a second child; and the passage of the inverted uterus

FIG. 48.



PARTIAL INVERSION.

along the vagina may serve to confirm her in these suspicions.

Examination *per vaginam* discloses a tumor either in the cavity of the pelvis or protruding externally, presenting a round, sensitive, elastic, and bleeding surface, wider below than above.

The difference in the size of the tumor will be greater or less as the inversion is more or less complete. Superiorly the tumor will be found closely surrounded by the cervix of the uterus. When the placenta is still adherent to the tumor it will add, of course, greatly to its bulk. In some instances the displaced organ becomes strangulated by the contraction of the cervix, causing inflammation, gangrene, sloughing, and death.

In *complete* inversion we may also have an ocular inspection of the tumor, which is of a red color at first, gradually becoming of a darker or dull brown color. When the *depression* is but slight we can not always detect any tumor in the vagina, but may sometimes feel the depressed fundus through the walls of the abdomen.

When the displacement comes on very gradually, and also in the chronic stage of the disease, the symptoms are correspondingly less violent. Profuse mucous discharges, irregular hemorrhages, pain at the seat of the misposition, sense of weight, dragging from the loins, with a bleeding surface of the tumor at each menstrual period, are the principal symptoms. When the uterus is protruded externally, it gradually becomes less sensible, and a kind of epithelium forms over its surface. Inflammation and ulceration are liable to occur.

In rare cases the organ has been safely removed by ligature, and in a few instances after the local suffering

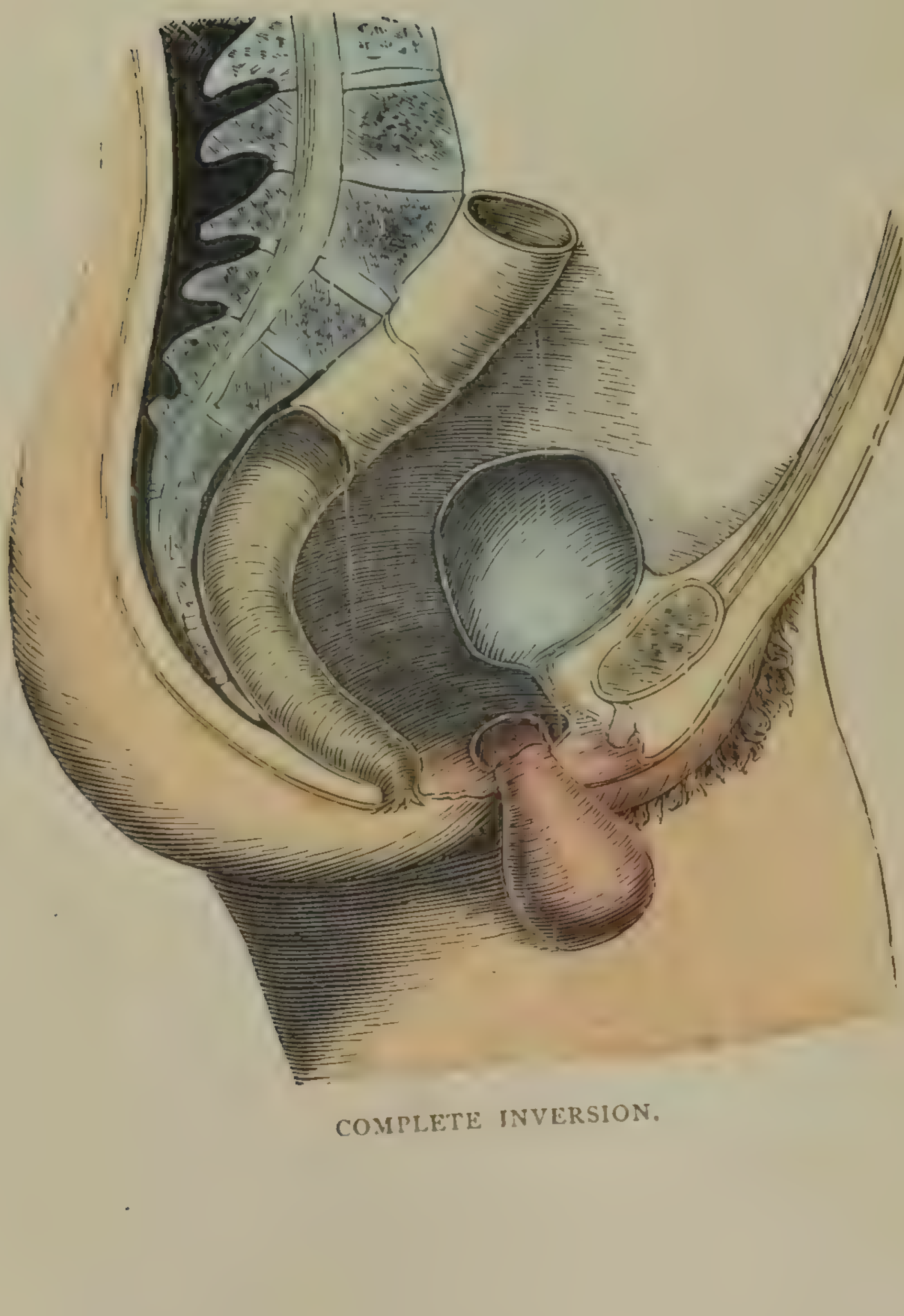
and constitutional suffering have subsided, and the tumor has become so shrunken in size that it ceased to be very annoying.

Diagnosis.—Incomplete inversion is liable to be mistaken for polypus of the uterus; it may be distinguished by its rough and bleeding surface, and by its sensibility. In many cases of incomplete inversion the diagnosis is exceedingly difficult. "It is generally remarked," says Newman, "that *invertio uteri* may be distinguished from polypus of that organ by the *os uteri not encircling the former tumor, in cases of complete inversion;* and by *the impossibility of passing the finger round the neck of the tumor, between it and the os uteri, when the inversion has been only partial;* by the *form of the tumor, polypus* being *broad at its base*, and attached by a *narrow peduncle*, while the *inverted uterus is broader above than below;* by the *insensibility* of the tumor in the one case, and by its extreme sensibility in the other; by the *comparative fixity* of the one tumor, and the *extensive sphere of motion* of the other; by the rough and fungous surface of *inversio*, contrasted with the *smooth and polished* circumference of polypus, and by the previous history of the patient's disease."

But Newman acknowledges that these diagnostic indications become less distinct and more uncertain the longer the disease exists. He admits, also, that "*polypi* and *inversion of the uterus* have been *repeatedly and interchangeably confounded* with one another."

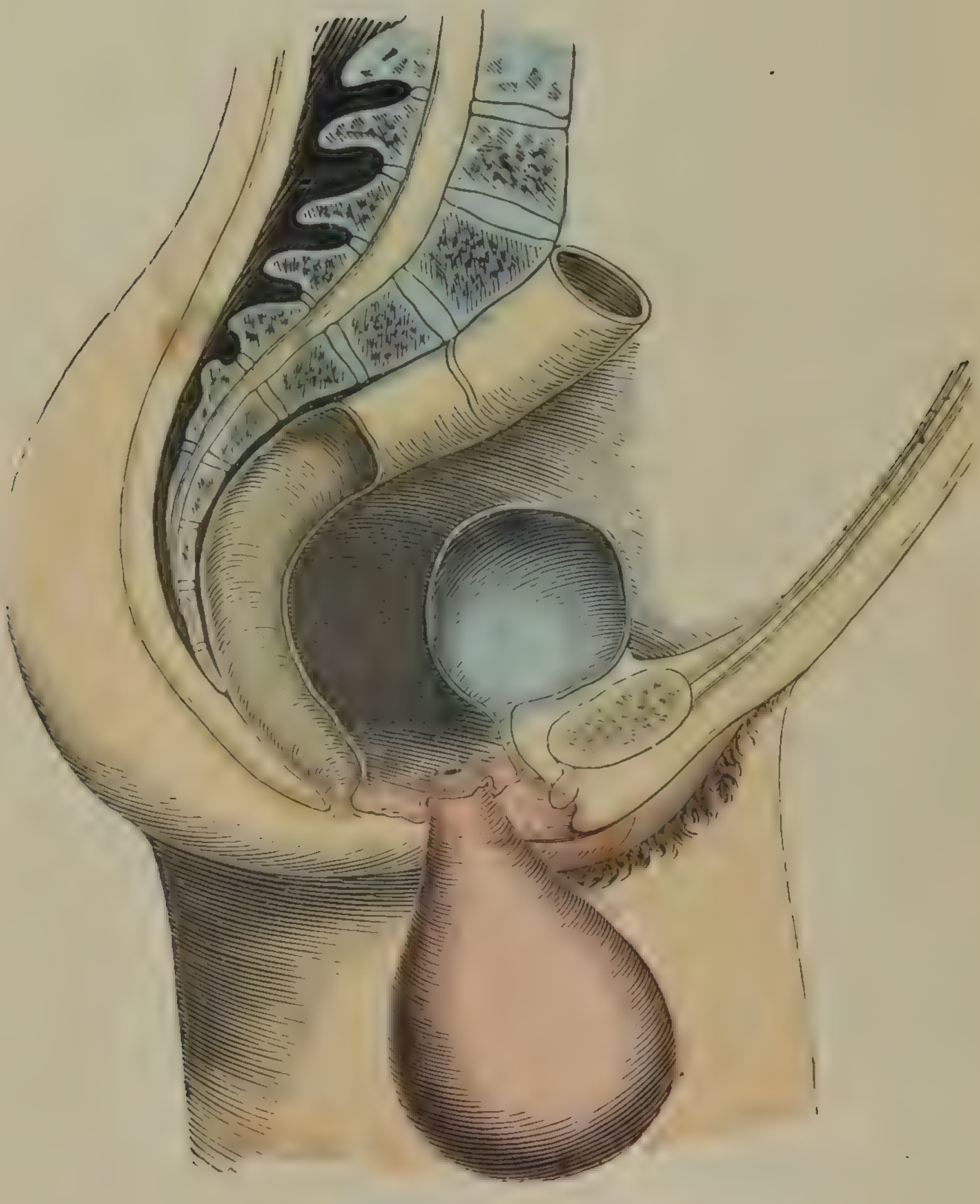
Capuron regards this displacement as liable to be confounded with prolapsus or polypus uteri, but thinks a distinction may be determined from the shape and sensibility of the tumor, the presence of the cervix uteri at

FIG. 49.



COMPLETE INVERSION.

FIG. 50.



INVERSION AFTER DELIVERY.

the upper part of the inversion, and by the neck of the tumor being short, instead of being long and thin, as in polypus."

Siebold, very justly, lays great stress upon the absence of the uterus from the abdomen in the case of inversion. Bouvin and Dugès also dwell particularly on this symptom. The absence of any opening at the lower part of the tumor will distinguish inversion from prolapsus.

Causes.—Inversion, immediately after delivery, may occur *suddenly* from a hurried or forced delivery, pulling improperly at the umbilical cord, or from the placenta being strongly adherent to the fundus of the uterus.

I was once in attendance when a fatal accident of this kind occurred. The patient had an easy, natural labor; no untoward circumstance whatever occurred. But very soon after the ligation of the funis and the removal of the child, the patient experienced an unusually long but not very severe pain; an alarming flooding succeeded; the patient grew rapidly pale and deathlike; faintness succeeded, the pulse sank, and in a few minutes the wife and mother was a corpse! The placenta was firmly attached to the fundus, and being large—the patient being also somewhat relaxed and debilitated from too sedentary habits—had dragged the fundus down and inverted the organ. I am of opinion that the suddenness of the fatal termination was, in part at least, owing to the introduction of air into the uterine veins, the non-contractile state of the muscular fibers being favorable to such an occurrence. Many cases of sudden and mysterious death, which have been recorded as taking place a few

minutes, or hours, or even days after delivery, when no displacement has existed, may be, perhaps, accounted for in the same way.

Where a *depression* had previously existed, inversion may take place several days after delivery, A polypus tumor attached to the body of the uterus may induce a *gradual* inversion.

Shortness of the umbilical cord, and its being twisted around the child's neck, have been among the *supposed* cases of inversion; but we have no positive evidence of this result from either of these circumstances.

The violent uterine contractions which sometimes take place in the unimpregnated uterus in severe cases of dysmenorrhœa, especially when attended with the formation of a membranous incrustration—false decidua—over the inner surface of the womb, which those contractions are endeavoring to expel, has in some cases induced a partial, and in other cases a complete, inversion.

Treatment.—In most cases of *depressed* uterus the fundus will be made to resume its normal position by due attention to the general health; and this is true of many, perhaps a majority, of cases of partial inversion. Complete inversion may generally be reduced if the attempt is made very soon after its occurrence; otherwise it may become irreducible, or the organ strangulated—in which case its removal by ligature is our best resource.

When complete inversion occurs after delivery, the placenta, if still attached, must be peeled off, and the reduction undertaken instantly, as a delay of several hours may render reposition impossible. "The protruded organ," says Churchill, "should be grasped

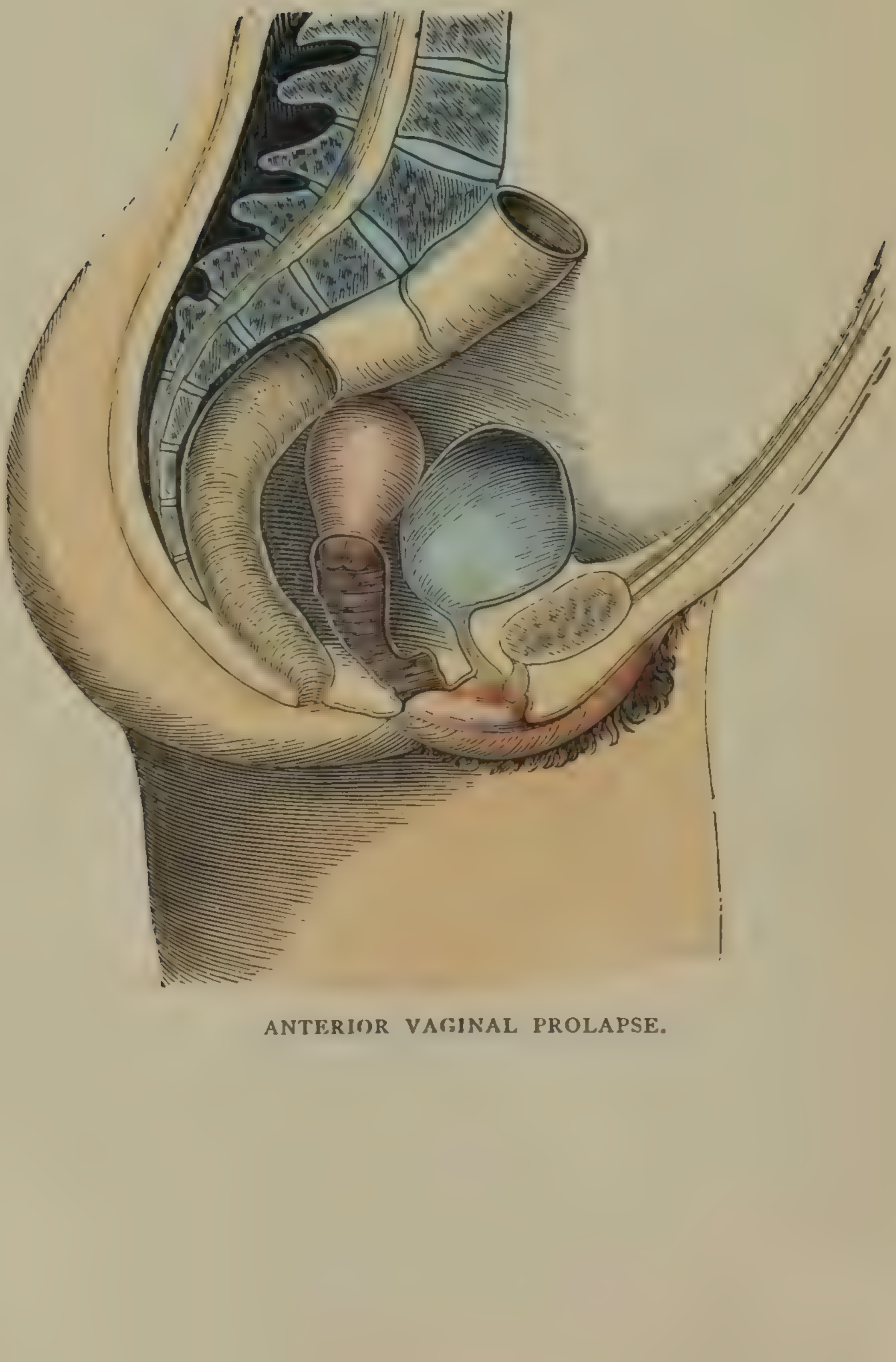
firmly, and pushed in through the vaginal orifice, followed by the hand (previously well oiled), which, when in the vagina, should be closed and formed into a cone, and made to press mainly upon the fundus uteri. No effect will be produced upon the inversion until the vagina shall have been put upon the stretch; but then, after some time, it will be found to recede, and on being still further pushed, it suddenly starts from the hand (like a bottle of India-rubber, when turned inside out), and the organ is restored to its natural condition. The hand (now in the cavity of the uterus) is not to be withdrawn, but rather expelled by the uterine contraction. This will insure the patient against a repetition of the accident. We should also assure ourselves, before the removal of the hand, that the restoration has been complete."

If any considerable time have elapsed since the accident, we must empty the bladder and rectum before attempting the replacement of the uterus; and if several hours or even days have elapsed, reduction may still be possible, and the undertaking will be justifiable to any extent short of great pain or distress to the patient. But in these cases it is especially important to soothe the local irritation and relax the whole muscular system previously to the operation. "Old-school" surgeon-accouchers advise bleeding and nauseating doses of tartar-emetic to induce the desired relaxation; but warm water—which is perfectly harmless—is more efficient than both of those measures together. Warm hip-baths, or, better still, the full warm-bath, prolonged as the case may require, afford the requisite means of accomplishing this intention; but if desirable to increase the degree of relaxation still, warm water may be freely drank.

When the case proves irreducible, we have a choice of evils left. The tumor may be supported by a proper bandage and compress, or removed by ligature. If great pain, excessive nervous irritation, or exhausting discharges be its accompaniment, the removal of the uterus by ligature is preferable if not indispensable; and if the whole system be put in good condition by proper bathing and diet, the operation is not very hazardous to life. It has certainly been several times performed successfully, and the details of an interesting case may be found in the second number of the *Hydropathic Quarterly Review*.

The ligature itself is very simple. A ligature of silk, whip-cord, or silver wire should be applied around the organ or tumor at its highest part, and gradually tightened as the patient can bear it, until the mass is entirely separated.

FIG. 51.



ANTERIOR VAGINAL PROLAPSE.

CHAPTER V.

PROLAPSUS OF THE VAGINA

Description.—Vaginal prolapse—*adoptosis vaginæ* of Good, *descente du vagin* of the French—is liable to be mistaken for prolapse of the uterus. The displacement consists in a descent or falling down of a part or of the whole of the vaginal canal. It is seldom, perhaps never, known, except in females who have borne children, and very rarely except in those who have passed the meridian of life.

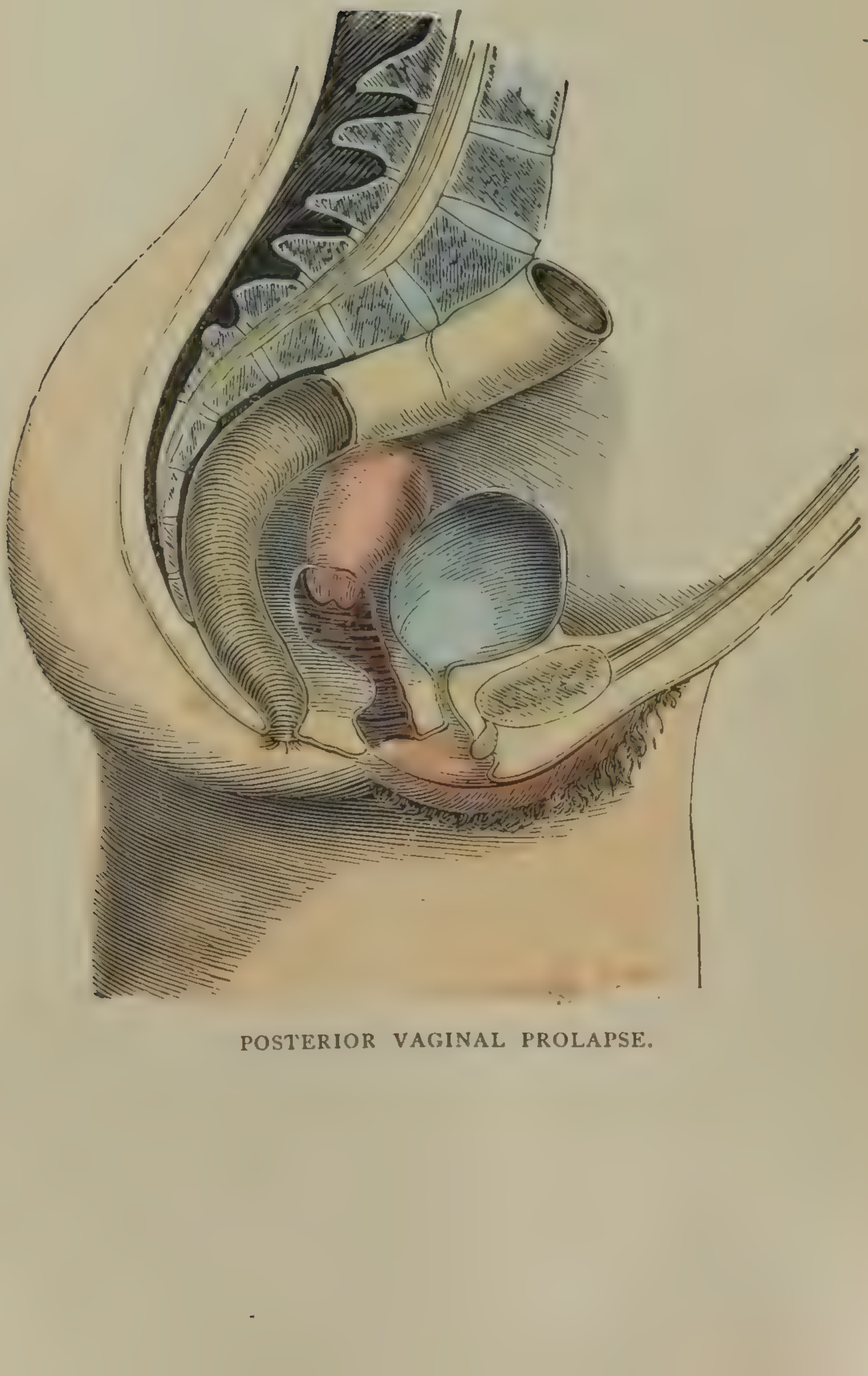
Varieties.—Three modifications of vaginal displacement may be distinguished. 1. *Anterior vaginal prolapse* (Fig. 51)—prolapse of the anterior wall of the vagina and the bladder, sometimes called *prolapsus vesicæ vaginal cystocele*. 2. *Posterior vaginal prolapse*—prolapse of the posterior wall of the vagina and rectum, denominated, also, *vaginal rectocele* (Fig. 52). 3. *Prolapse of the whole vaginal canal*, without the protrusion of the bladder or rectum (Fig. 53). This last variety has been subdivided by authors into *partial*, when within the vagina, and complete when protruding externally. The third variety is the least frequent; the first and second sometimes alternate.

Symptoms.—In either form of prolapsed vagina the

symptoms very much resemble those of falling down of the womb. In the *first variety* the patient complains of weight in the vagina, sense of emptiness, dragging, bearing down, more or less difficulty in walking, some degree of dysuria, with an increassd mucous or leucorrhœal discharge. The bladder sometimes becomes over-distended, requiring catheterism; and in some cases the patient can only evacuate the bladder completely by replacing the bladder and supporting it in its natural position. "On examination," says Churchill, "a round, soft, elastic, fluctuating tumor, of a red or bluish-red color, is perceived in the orifice of the vagina, varying in size at different times, and which can be greatly diminished by catheterism. When introduced, the catheter requires to be directed downward. The finger can be passed into the vagina *below* the tumor, but immediately under the arch of the pubis the mucous membrane terminates in a '*cul de sac*,' from whence it is reflected over the protruding part. The os uteri can be felt behind and above the tumor, nearly in its natural situation. The surface of the tumor, when large, is smooth, moist, and shining; but when nearly empty it is thrown into transverse folds."

In the *second variety* the same general assemblage of symptoms exists, in addition to which some degree of relief from the uneasiness or inconvenience in walking is always obtained by the evacuation of the rectum. A round tumor occupies the orifice of the vagina, readily discovered on separating the labia pudendi. The tumor is compressible, but not fluctuating, and through its parieties scybalæ, or hardened fæces, in the rectum may be sometimes felt.

FIG. 52.



POSTERIOR VAGINAL PROLAPSE.

The finger will pass readily *anterior* to the tumor, but is arrested posteriorly by the mucous membrane, where it is reflected forward upon the tumor. The surface of the mucous membrane is smooth when the prolapsed vagina is distended, but is thrown into folds whenever the rectum is emptied.

In the *third variety* the rectum and bladder are unaffected, and the tumor is not diminished by the evacuation of their contents. On examination, the tumor will be discovered to project from the entire circumference of the vaginal orifice, and an opening, leading upward to the os uteri, is found at its lower part. In severe cases the uterus is more or less dragged down from its natural situation. In a partial circular prolapse the mucous membrane projects in a fold, either anteriorly or posteriorly. In some the protrusion descends several inches below the vaginal orifice.

This condition impedes sexual intercourse, prevents conception, and sometimes occasions inflammation, ulceration, excoriation, or varicose veins.

Diagnosis.— *Vaginal prolapsus anteriorly* may be distinguished from *prolapse of the posterior wall* by the finger passing into the vagina behind it; also by the tumor being softer and more fluctuating. From *prolapsus uteri*, by the tumor being soft, round, and fluctuating, whereas the tumor, in prolapsus uteri, is firm, resisting, and of a pyriform shape. In prolapsus uteri the os uteri is at the lower part of the tumor, while in vaginal prolapse it is found by passing up the finger, in nearly its natural situation. From *inversion of the uterus* it may be known by its being diminished by catheterism. The tumor also in inversion is firm and rough, and the

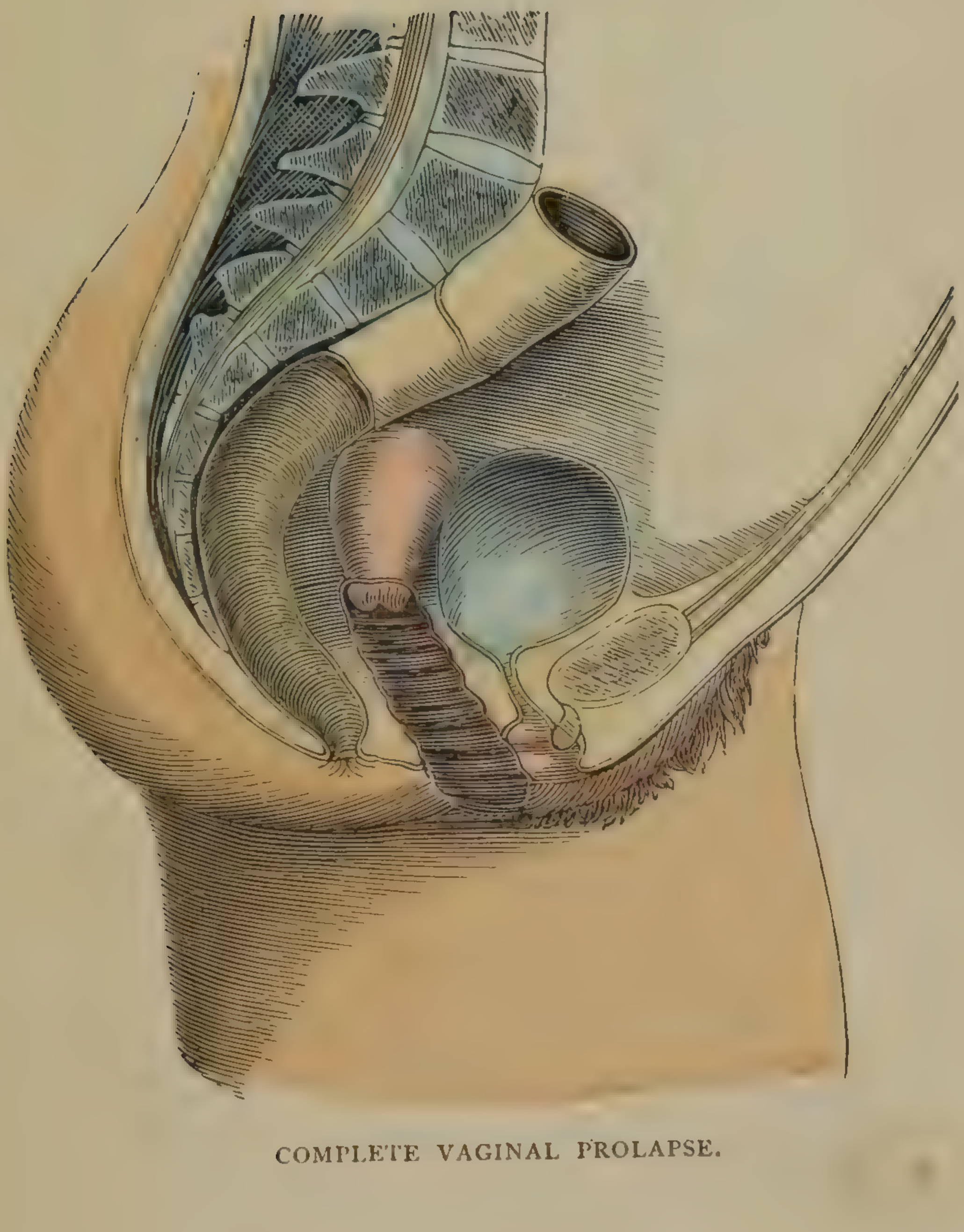
finger is prevented from passing into the vagina by the reflected mucous membrane.

Prolapsus posteriorly may be distinguished from the anterior displacement by its permitting the finger to pass in front of the tumor; also by its situation on the posterior side of the vagina. The tumor diminishes after evacuations of the fœces, and is compressible, but not fluctuating, as in vaginal cystocele. From *prolapsus uteri* by the os uteri being found at nearly its natural elevation, and by the tumor being variable in size. From *inversion of the uterus* by the softer tumor, and its permitting the finger to pass anteriorly; whereas in inversion the *cul de sac* of the inverted vagina completely prevents its passage.

Prolapse of the vaginal canal is scarcely liable to be mistaken for any other form of malposition, except *prolapsus uteri*, and only then when the tumor has existed for a long time, and become hard and swollen—in which case the inferior orifice may be mistaken for the os uteri. The error may be avoided by introducing the finger, which will detect the os uteri at or near its natural position.

Causes.—Repeated child-bearing, and frequent overdistention of the bladder, are the most common causes of the anterior prolapse. The posterior is generally if not invariably induced by habitual constipation. Prolapse of the *vaginal canal* may result from any causes which produce extreme relaxation of the parts, among which are excessive or inordinate sexual indulgence, abortion, leucorrhœa, constipation, and excessive menstruation. Probably prolonged and obstinate constipation has more to do in the production of these displacements than all other causes combined.

FIG. 53.



COMPLETE VAGINAL PROLAPSE.

Treatment.—Nearly all forms and degrees of vaginal prolapse can be cured without much difficulty by means of frequent cold injections, a simple, abstemious, opening diet, with the avoidance of any considerable accumulation of urine in the bladder. Hip-baths, and the ascending douche, are very serviceable, and a moderate stream applied daily to the hips and along the spine is also advantageous.

Sponge tents, pessaries, filling the vaginal orifice with a roll of linen or wax-candle, caustics, and the removal of a slip of mucous membrane with a knife, are among the surgical measures which have been proposed; but I doubt the necessity of any, and the propriety of all of them.

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